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ABSTRACT

Analyzed is the impact of regional, racial or ethnic, and socioeconomic factors on handicapped students' participation during 1973 in special education programs in more than 37,000 schools within 2,500 local U.S. school districts. Included are data on American Indian, black, Spanish surnamed, Asian American, and nonminority pupils enrolled in programs for the educable and trainable mentally retarded, special disabilities such as physical handicaps and specific learning disabilities, slow learners, and the severely emotionally disturbed. Noted among major findings are correlations between special education participation geographic locale (such as that overall participation is highest in the South and lowest in the West), minority pupils' enrollment (such as that minority pupils in general and black pupils in particular participate at a much higher rate than their nonminority counterparts), and socioeconomic influences (such as that special education participation rates tend to be higher in districts which are smaller, less urban, poorer, and enroll predominantly black students). A section on additional findings includes information on national projections, special school enrollments, local service distribution, additional socioeconomic variables (such as percentages of Title I revenues), and alternate data analysis techniques. Also discussed are policy implications, recommendations for further research (including the need to reexamine current special programing efforts), major data sources analyzed, and technical analysis approaches. Two separate appendixes contain extensive graphical information. (LH)

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# ANALYSIS OF 1973 PARTICIPATION OF HANDICAPPED CHILDREN IN LOCAL EDUCATION PROGRAMS

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and

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U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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# I. INTRODUCTION

Much conjecture on the number of children requiring special educational services as the result of handicapping conditions revolves around estimates of the prevalence of certain handicaps among children. The gross disparities between the perceptions of parents who perceive less than 5 percent of their children as disabled, and the perceptions of teachers who report that up to 25 percent of all pupils require special education as the result of handicaps, are not easily resolved. One approach to accurately assessing need would rely on comparable, validated, cross correlated studies of children evaluated by parents, medical and education personnel. As the availability of such data is unclear (NCHS has not completely analyzed the data from the Health Examination Survey of Children and Youth) and such a design might be adversely affected by inherent defects in traditional reporting methods, alternative estimating procedures need to be developed.

One alternative method rests on the hypothesis that, as the right to an education is extended to all handicapped children through State and Federal programs and active civil rights enforcement (under Section 504 of the Vocational Rehabilitation Act of 1974); the number of children actually receiving service would, within a short period of time, come to accurately reflect the need. Furthermore, as there is strong pressure to educate handicapped children in the "least restrictive environment" within the local school district, the participation in local education agencies (LEAs would become the predominant service providers of special education. (In fact, we estimate that State supported institutions, including private, accounted for only 7.8% of the children receiving special education.) This study was initially designed to provide such a necessary benchmark of local special education participation as a basis for this type of need assessment.

However, with the availability of racial and socio-economic characteristics of a large number of school districts, the scope of the project was enlarged considerably to focus not only on the overall participation rates, but also on the general characteristics of special education. Therefore, while this study provides a general benchmark of participation which may be useful in the future, the main thrust of the study concentrates on describing the patterns of special education distribution in LEAs in 1973.

There are two predominant schools of thought about the provision of special education in the American schools. The more tranditional special educators believe that programs for the handicapped have had a highly beneficial effect on the children they serve; developing student potential which regular education has been unable to do. They point to many innovative educational techniques and materials developed for handicapped pupils which have been adopted by regular programs as proof of the effectiveness of their programs.

Many critics of special education, while not dismissing the important educational innovations and benefits to students derived from exemplary programs, believe that the general quality of special education programming has not been good. Some feel that the primary purpose of placing students in special education classes has been to segregate them from the mainstream of the school, and point to the record of poor academic achievement by handicapped pupils as evidence of the failure of traditional special education. One result of the criticism of the traditional segregated programs has been a recent trend to educate mildly handicapped children with their non-handicapped peers, the mainstreaming movement.

By merging the large 1973 OCR Survey of Schools data on pupils in LEA programs for handicapped pupils with the descriptive data on school districts from the combined Census ELSEGIS EPV data, it has been possible to examine the regional and racial characteristics of students and compare them with several socio-economic characteristics of their school districts.[1] The description of patterns of participation within school districts is important as, until recently, most funding for special education was local, not State or Federal. Therefore, if the historical belief that handicapping conditions are distributed evenly by region and race is correct, then the most extensive special education programs would be expected in those districts which could most easily bear the high additional costs of those programs. Intuitively, it might also be expected that such programs would be larger in urban districts with large enrollments, districts which, due to size and sophistication, contain enough handicapped children and expertise to deliver the more complex services required by severely handicapped children.

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[1] A discussion of the data sources (structure, content, strengths and limitations) is contained in Section VI.

Our findings, presented in the following sections, examine these suppositions and others. Recommendations for further analysis of this data are included with the summary of the findings. Extensive discussions of the strengths and weaknesses of the data sources themselves and the analytic methodology are also contained within the body of the report. Appendix A contains additional graphical analysis not included within the main body of the report and Appendix B contains explanations of each of the reports prepared by the contractor during the period of performance.

## II. SUMMARY OF FINDINGS AND RECOMMENDATIONS

The current study analyzes the impact of regional, racial ethnic, and socio-economic factors upon the following four components of special education participation.

EMR (Educable Mentally Retarded) special education programs include moderately retarded children (usually measured as an IQ below 75 or 80 - often at the discretion of the LEA). Such programs comprise 39.2% of the total special education population surveyed. While EMR is a concept understood by most school districts, potential classification ambiguities do arise from subjective judgements used to identify children requiring EMR services (as opposed to non-retarded slow learners, etc.).

TMR (Trainable Mentally Retarded) special education programs include children with more pronounced mental retardation (again usually measured by an IQ below 50). TMR, which comprises only 5.6% of the special education population surveyed, is a widely understood concept with fewer classification problems than EMR.

Special Disabilities Programs (26.3% of the study special education population) consist of children with physical handicaps including the blind, deaf, speech impaired, orthopedically handicapped, and learning problems caused by neurological disorders. In some school districts children with specific learning disabilities may be included in this category. However, small participation rates would indicate that this is not generally the case. Surprisingly, while speech impaired is specifically included in the questionnaire, the total rate for this category remains low. This might indicate that, at the local level, children receiving speech therapy for mild speech disorders are not considered handicapped.

Other special education, which as defined by the OCR survey contains 28.9% of the special education population surveyed, encompasses a range of programs for the severely emotionally disturbed, the socially maladjusted, and slow learners. This category is most open to alternative interpretation and pupil classification by different school districts.

Total special education is the simple sum of the four previous categories.

Our analysis shows that three general factors influence rates of pupil participation in all aspects of special education. First, significant variation exists in special education among the four regions of the country. Second, we find that a pupil's racial ethnic background has a strong affect on his likelihood of being placed in special education programs.[1/] In particular, minority children are involved in special education at a much higher rate than non-minority children. Finally, school district socio-economic conditions have considerable impact on the rates at which pupils take part in special education. Specifically, as a district becomes poorer, smaller, less urban, and blacker, its students tend to participate in special education at higher rates.

At the regional level, we find that the South has the highest percentage (4.55%) of students participating in special education in public schools. Participation in the Midwest is near the national average of 4.04%. Meanwhile, participation in the Northeast is below the national level and the West has consistently lower total participation (3.17%) than the other regions. A possible explanation for considerable regional variation in participation rates involves differing numbers of handicapped children attending state-supported institutions, rather than public schools. However, an analysis of each region's institutionalized enrollment shows two things: institutionalized enrollments are a small percentage of each region's special education enrollment and, when institutionalized enrollments are taken into account, regional differences still remain pronounced.

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1/ The racial ethnic backgrounds covered are the four minority classifications of American Indian, Black, Spanish-Surnamed and Asian American; Non-minorities; and Total enrollment.

Whether these differences represent variations in the actual prevalence of school-related handicaps among the regions, or simply reflect regional variation in the rates at which special education populations are classified and serviced, cannot be determined from this data. In either case, we have found the trends to be statistically and qualitatively significant. Additionally, significant differences in regional participation are also accompanied by wider variations in special education participation reported by the states. Any speculation that state participation rates are uniform throughout the nation may be dispelled by these findings. Further analysis in this area must await the availability of more extensive and representative data on the state level.

A second area of striking findings concerns unexpectedly high rates of minority, particularly black, children participating in special education. Nationally, 6.13% of all black pupils are placed in special education while 3.19% of all non-minority children are involved. Minority rates are considerably higher for EMR and Other programs in all regions and for TMR programs in the South and the West (but surprisingly lower in the Midwest). In contrast, minorities participate in Special Disabilities programs at a lower rate in the nation - in particular, in the Northeast and West.

Racial imbalances in special education participation are confirmed by analyzing differences in the racial composite of district special education programs and overall school-age population. Specifically, we computed (in terms of standard deviations) the difference between the actual number of pupils of a given race enrolled in a program and the number which would be expected if assignment were a "color-blind" process. Analysis in this area definitely rejects the hypothesis that race and special education participation are unrelated. The strongest deviations from the random draw model are found in all regions for EMR and Other programs. When the various racial breakouts are generated, it becomes clear that blacks, more so than other minorities, are placed in special education at rates disproportionately high in terms of their relative population in the district.

Significant statistical deviation from random draw expectations is found for minority and non-minority participation in Special Disabilities programs. However, in this area, minorities are under, rather than over, represented. This behavior is particularly important because it shows that even for the Special Disabilities program (which, not withstanding the previous discussion, has fewer ambiguities concerning classification of pupils), racial differences occur in participation rates. The Special Disabilities category contains handicapping conditions which are based on medical diagnosis. It is as important to find minorities under represented in this group as it is to find them over represented in EMR, TMR, and Other special education programs.

Many explanations can be advanced for these findings - findings based on unexpected, strong and statistically significant trends. Most explanations fall into one of three categories: (1) minority children are more likely to be handicapped; (2) minority children are more likely to reside in school districts which provide more extensive programs for the handicapped; and, (3) minority children are more likely to be placed in programs for handicapped children for other than clinical reasons. The political ramifications of these explanations are clear, and much debate of these issues supported by sketchy data, has taken place in the past. Our findings may aid in clarifying some of the issues encompassed by this controversy.

First, the belief that minority children are more likely to be handicapped than non-minority children, usually attributed to economic and environmental deprivation, doesn't seem to be supported by this data. It must be noted, however, that the data focuses only on program participation, not on medical diagnosis of handicaps. Nonetheless, both American Indians and Spanish Americans are saddled with poverty and environmentally related health problems, yet they are much less likely to be in special education than black pupils.

Second, an argument that minority children are, by coincidence, more likely to reside in school districts which have extensive special education programs appears to be discounted by this data. If we group the districts by their rates of participation in Total special education, we find no trend indicating that minority children tend to reside in districts with extensive programs. For example, districts with 2-6% of their enrollments participating in special education contains a higher percentage of minority children in their school-age population than districts with over a 6% participation rate. A related but slightly different perspective can be gained by examining the impact of increasing minority enrollments on district special education participation. There is a strong trend observed that as minority concentration increases in a school district minority special education participation declines.

In summary, it does not appear that the racial differences in special education participation are the result of extensive programs coincidentally belonging to districts with relatively large minority enrollments.

That minority children are placed at high rates in special education classes which effectively segregate handicapped children from the mainstream of the educational system is a viewpoint which has been expounded by many school critics. Even the Montgomery County, Maryland school system, one with an excellent reputation in both special and general education, was recently taken to task by three researchers for the over representation of blacks in special education, primarily in classes for the emotionally disturbed and mildly retarded. This specific example characterizes national and regional patterns of special education participation: minority children, especially black children, are placed in EMR and Other programs (programs with imprecisely defined admission criteria) at "excessively" high rates. The fact that Spanish-Surnamed children are over represented in special education programs in the Northeast and West, regions which have large concentrations of Spanish speaking families, also supports the model that some areas use EMR and Other programs as a means to remove minority children from the mainstream of the educational system.

An analysis of the influence of socio-economic conditions on special education participation pinpoints several important factors. We found that Total special education participation increases as school districts become poorer, blacker, smaller, and less urban. Both minority and non-minority participation are affected by these district characteristics, although minority participation is more sensitive to them. Trends observed on the national level are seldom incompatible with the participation patterns on the regional level. Nevertheless, further examination of regional differences in the impact of social and economic surroundings upon special education participation is warranted.

Study findings are inconsistent with the following intuitive line of reasoning: only wealthy (often predominantly non-minority) districts with large, centralized enrollments (more likely to be found in urban areas) can bear the cost of special education instructors and facilities; and, because of economies of scale, large districts make more efficient use of special education programs. Rather, we found during the course of this study that poorer, blacker, smaller, and less urban districts generally believed to be less sophisticated in educational programming, have larger special education program participation.

A closer analysis of the relation between increasing minority concentrations in districts and special education participation yields several interesting results and explanations. As school districts contain higher concentrations of minority students, total participation rises slightly, while minority participation declines sharply. In other words, when minorities dominate district enrollment, and in a sense become less "visible," they participate in special education less frequently. This decrease in minority involvement may stem from either increasing minority control of the administrative structure of the school or from decreasing conflict between minority and non-minority students (resulting in behaviorally related special education placement). In this case, the finding suggests that when minority pupils are visible in a district, they face a relatively higher likelihood of being segregated from the general program through placement in special education.

In summary, the principal findings of this study contradict many traditional beliefs regarding special education programs. They sketch a picture of a system where receiving service is probably not independent of the race of the child, the socio-economic characteristics of his school system, or even of the region in which he lives. During the course of this study, we have examined the data from many different angles, producing many quantitative descriptions of special education participation in the nation which, taken as a whole, create the picture summarized above. Finally, we present possible interpretations of the data which, we believe, call for further investigation.

Several implications of study findings are discussed in Section V, Policy Implications and Recommendations for Further Research. One important conclusion is that until a more complete understanding of the actual state of educational programming for the handicapped can be reached, new initiatives for increasing participation in these programs should be approached with caution.

# III. MAJOR FINDINGS

## A. Introduction

The Major Findings section analyzes the impact upon special education participation of regional, racial ethnic, and socio-economic factors.

Our analysis of the effect of geographic local upon special education participation (discussed in section III.B) indicates that definite regional differences do exist. For example, the overall rate of participation is highest in the South and lowest in the West.

A surprising finding of the study demonstrates that minority pupils in general and black pupils in particular participate in special education at a much higher rate than their non-minority counterparts (section III.C).

Finally, Section III.D discusses the influence of district socio-economic environment upon its special education participation. One of this section's most important findings is that, as a district becomes smaller, less urban, poorer, and blacker, the percentage of its pupils participating in special education increases. This result contradicts one model of special education - namely, that only rich, urban, large, and predominantly white districts can afford extensive programs, and consequently, such districts should have relatively high participation rates.

## B. Regional Findings

The first level of analysis in this project examines regional differences in special education participation. The regions selected are the four standard census regions. The participation rates by type of program and region are graphed in Figure III.B.1 and presented in Figure III.B.2.

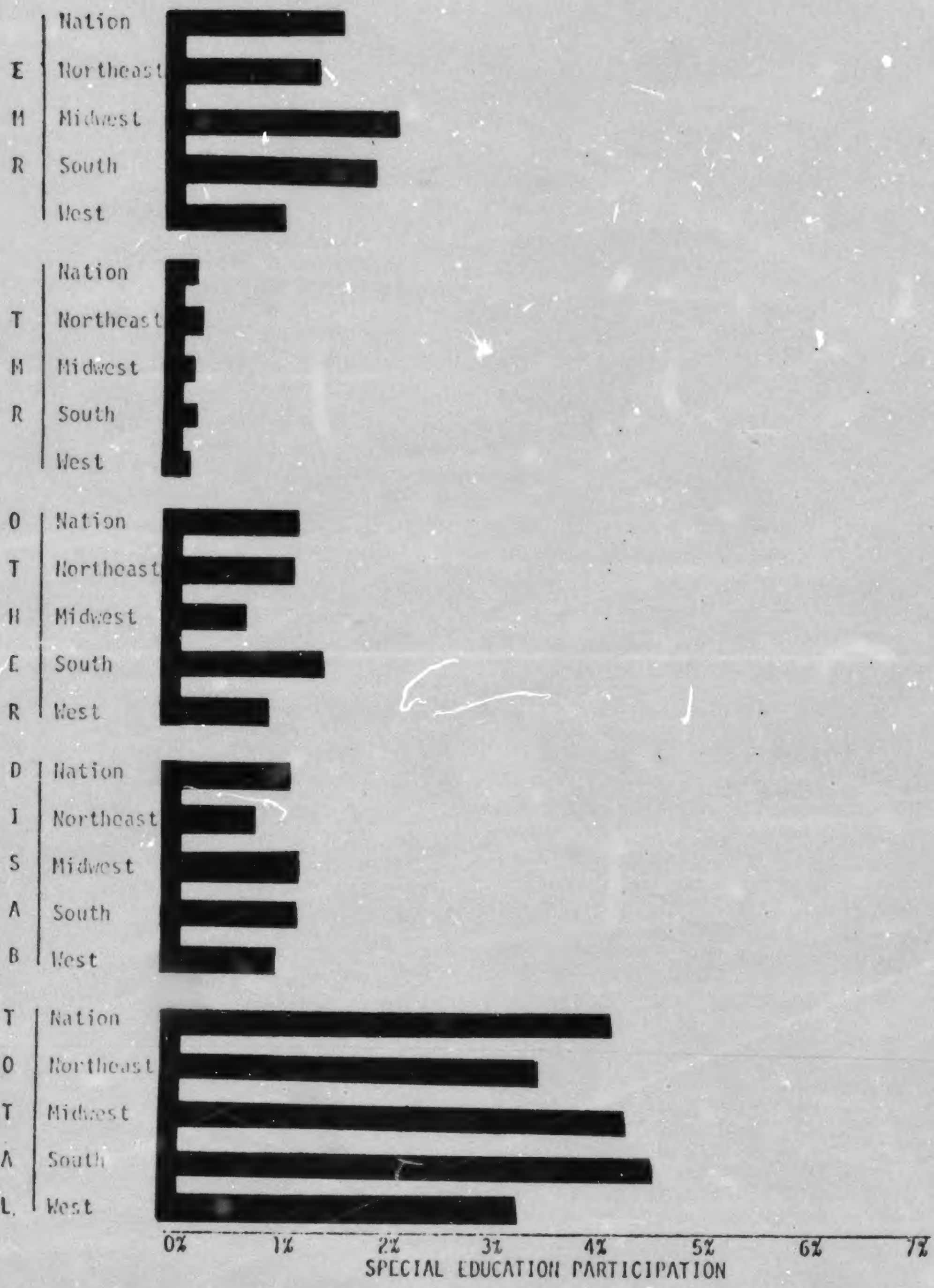
Figure III.B.1 presents a regional breakdown of participation rates in all aspects of special education - EMR, TMR, Other, Special Disabilities, and Total programs, with each regional or national participation rate denoted by a bar. This figure illustrates that the South reports the highest participation rate in special education, followed by the Midwest. The Northeast has below average participation and the West is considerably below average. However, analysis of the individual program categories presents a more complex picture of the regional patterns of service. The TMR category shows the smallest range of regional variation; variations for Special Disabilities and Other are similar in extent; and programs for EMR children show the greatest range, from the Midwest where over 2% of school children are in such programs, to the West where only 1% of the children participate in EMR programs.

The Midwest has the greatest percentage of retarded children but the smallest in programs for emotionally disturbed or slow learners. The Northeast is well above average in serving TMR children in the local schools, but has the smallest rate of participation in programs for physical handicaps and learning disabilities. The high total participation in the South is largely due to above average numbers in EMR and extremely high numbers in programs for emotionally disturbed and slow learners. Schools in the West serve the fewest children in MR (EMR and TMR) programs and are below average in Special Disability and Other programs.

While it is initially difficult to ascertain the reasons for these large differences in regional service patterns, several possible explanations should be explored. First, the number of institutionalized children

Figure III.B.1

Regional Special Education Participation



## Figure III.B.2
## Analysis of Public School and Institutional Special Education Participation

| | EMR | TMR | (sum) MR | Special Disab. | Other | Total |
|---|---|---|---|---|---|---|
| A. Public School Participation | | | | | | |
| Nation | 1.58 | .24 | 1.82 | 1.09 | 1.12 | 4.04 |
| Northeast | 1.32 | .29 | 1.61 | .79 | 1.08 | 3.48 |
| Midwest | 2.03 | .23 | 2.26 | 1.17 | .75 | 4.18 |
| South | 1.78 | .24 | 2.02 | 1.17 | 1.35 | 4.55 |
| West | 1.00 | .21 | 1.21 | 1.04 | .93 | 3.17 |
| B. Institutional Participation | | | | | | |
| Nation | | | .21 | .09 | .04 | .34 |
| Northeast | | | .24 | .12 | .09 | .45 |
| Midwest | | | .31 | .06 | .04 | .41 |
| South | | | .17 | .09 | .02 | .28 |
| West | | | .12 | .07 | .02 | .21 |
| C. Total Participation | | | | | | |
| Nation | | | 2.03 | 1.18 | 1.16 | 4.38 |
| Northeast | | | 1.85 | .91 | 1.17 | 3.93 |
| Midwest | | | 2.57 | 1.23 | .79 | 4.59 |
| South | | | 2.19 | 1.26 | 1.37 | 4.83 |
| West | | | 1.33 | 1.11 | .95 | 3.38 |
| D. Public Participation As % of Total Participation | | | | | | |
| Nation | | | 89.6% | 92.4% | 96.6% | 92.2% |
| Northeast | | | 87.0% | 86.8% | 92.3% | 88.5% |
| Midwest | | | 87.9% | 95.1% | 94.9% | 91.1% |
| South | | | 92.2% | 92.9% | 98.5% | 94.2% |
| West | | | 91.0% | 93.7% | 97.9% | 93.8% |

varies from region to region and skews the reports of local schools. Figure III.B.2 demonstrates the effect of institutionalized enrollments upon regional participation in special education.

In Figure III.B.2, column 3 is a subtotal of EMR and TMR participation. The Public Participation section of the table presents national and regional participation rates in all aspects of special education for public school enrollments. The Institutional Participation section of the table shows the participation in special education computed for the institutionalized population served by the P. L. 89-313 program. In the Total Population section of the table, rates are given for national and regional total enrollment, both public and institutional. Finally, the Percentage Participation section of the table gives the public school participation as a percentage of total participation.

One purpose of Figure III.B.2 is to show that most pupils involved in public special education attend public schools (private, non-State supported schools contain an unknown percentage of all handicapped pupils, however the percentage is believed to be small). Also, while institutional enrollments narrow the gap between the South and Midwest in total participation, no changes occur in the order of participation. This table also indicates that the institutionalized population is concentrated in the Northeast and Midwest, and that the Midwest's participation rate for programs for the retarded has increased further; now 17% higher than in the South. However, in no case do institutional enrollments constitute more than 15% of a program's enrollment. Therefore, due to the small size of the institutionalized population and its minor effects on the distribution of population, we can conclude that some other variable must be causing the regional differences.

Two other hypotheses which cannot be currently tested are: 1) that major differences in classification procedures at the state or local level cause the variation; or 2) that real differences in the prevalence of handicapping conditions do exist. At the present time, due to the report by states of widely differing estimates of prevalence, we believe that the first hypothesis probably accounts for the bulk of the variation.

In analyzing regional differences in special education participation (as well as studying the impact of racial ethnic and socio-economic influences), it is important to determine the significance of observed trends. In one sense, the simple fact that observed trends are based on a sample of half the nation's enrollment lends credence to study findings. Additionally, the F-Ratio statistical test provides more quantifiable insurance that apparent differences are significant, and not the product of chance fluctuations. For example, although the South has higher average participation than the West, it is easy to show that many individual Southern districts have lower participation rates than the West's average rate. By balancing differences in average regional participation with variability of individual district participation within each region, the F-Ratio tests the hypothesis that observed rates are really statistically equivalent (with any apparent differences attributable to chance fluctuations).

The following table lists regional participation rates and associated F-ratios for the five special education programs for minority, non-minority, and total participation. Note that the larger the F ratio is, the greater the probability that observed regional differences are statsitically meaningful. For example, total participation rates of 3.5% for the Northeast, 4.2% for the Midwest, 4.5% for the South and 3.2% for the West result in an F ratio of 14.9 which corresponds to a 99.99% probability that the observed rates are statistically different. F ratios are presented as backup to all graphed trends.

AUG 05, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY REGION HEW/OASPE

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| NORTHEAST | 1.3 | 0.3 | 1.1 | 0.8 | 3.5 | 1.7 | 0.3 | 1.5 | 0.7 | 4.3 | 0.8 | 0.3 | 0.5 | 0.9 | 2.7 | 139 |
| MIDWEST | 2.0 | 0.2 | 0.7 | 1.2 | 4.2 | 3.0 | 0.2 | 0.8 | 1.2 | 5.2 | 1.4 | 0.2 | 0.7 | 1.2 | 3.5 | 202 |
| SOUTH | 1.8 | 0.7 | 1.4 | 1.2 | 4.5 | 3.2 | 0.3 | 2.0 | 1.2 | 6.8 | 1.0 | 0.2 | 1.0 | 1.2 | 3.3 | 828 |
| WEST | 1.0 | 0.2 | 0.9 | 1.0 | 3.2 | 1.5 | 0.3 | 0.9 | 1.0 | 3.6 | 0.8 | 0.2 | 0.9 | 1.1 | 3.0 | 373 |
| F-RATIO | 33.03 | 2.40 | 5.80 | 0.57 | 14.97 | 51.26 | 3.98 | 6.15 | 1.17 | 30.06 | 7.15 | 3.99 | 3.53 | 1.00 | 2.71 | |
| SIGNIFICANCE % | 99.99 | 93.47 | 99.91 | 42.72 | 99.99 | 99.99 | 99.20 | 99.94 | 67.44 | 99.99 | 99.98 | 99.21 | 98.58 | 60.66 | 95.74 | |

A more detailed discussion of the F ratio and other statistical measures is given in the Statistical Analysis portion (VII.D) of Section VII, Technical Approach to Analysis.

Two factors which could lead to regional differences in participation rates are discussed in the following two sections of this report. When the racial composition or socio-economic character of regions vary, our analysis indicates different participation rates are to be expected. In the following section, it is seen that ethnicity and special education are closely linked, with minority pupils placed in special education programs at a much higher rate than non-minority pupils. Following the analysis of racial differences in special education participation is a discussion of the effects of socio-economic factors upon participation in special education programs. Several factors are included, such as per capita income, urbanization, and enrollment, which have significant effects on special education participation.

## C. Racial Ethnic Background Findings

A second important level of analysis concentrates on the racial makeup of special education participation. Some conventional wisdom has long held that handicapping conditions are evenly distributed throughout the population. The previous analysis of participation by region shows that definite differences do exist in the geographic distribution of service. In this analysis, we attempt to ascertain whether assignment to and participation in special education programs show major differences by race. The recent, widespread reports that special education classes are used to segregate minority children could be statistically supported or denied by examining this data.

Figure III.C.1 is of particular value in discerning racial differences in special education participation. Each regional or national participation rate is denoted by the thick bar which consists of three sections. The upper third corresponds to the minority participation rate, the middle third to the total participation rate, and the lower third to the non-minority participation rate. These relationships are summarized in the following key:

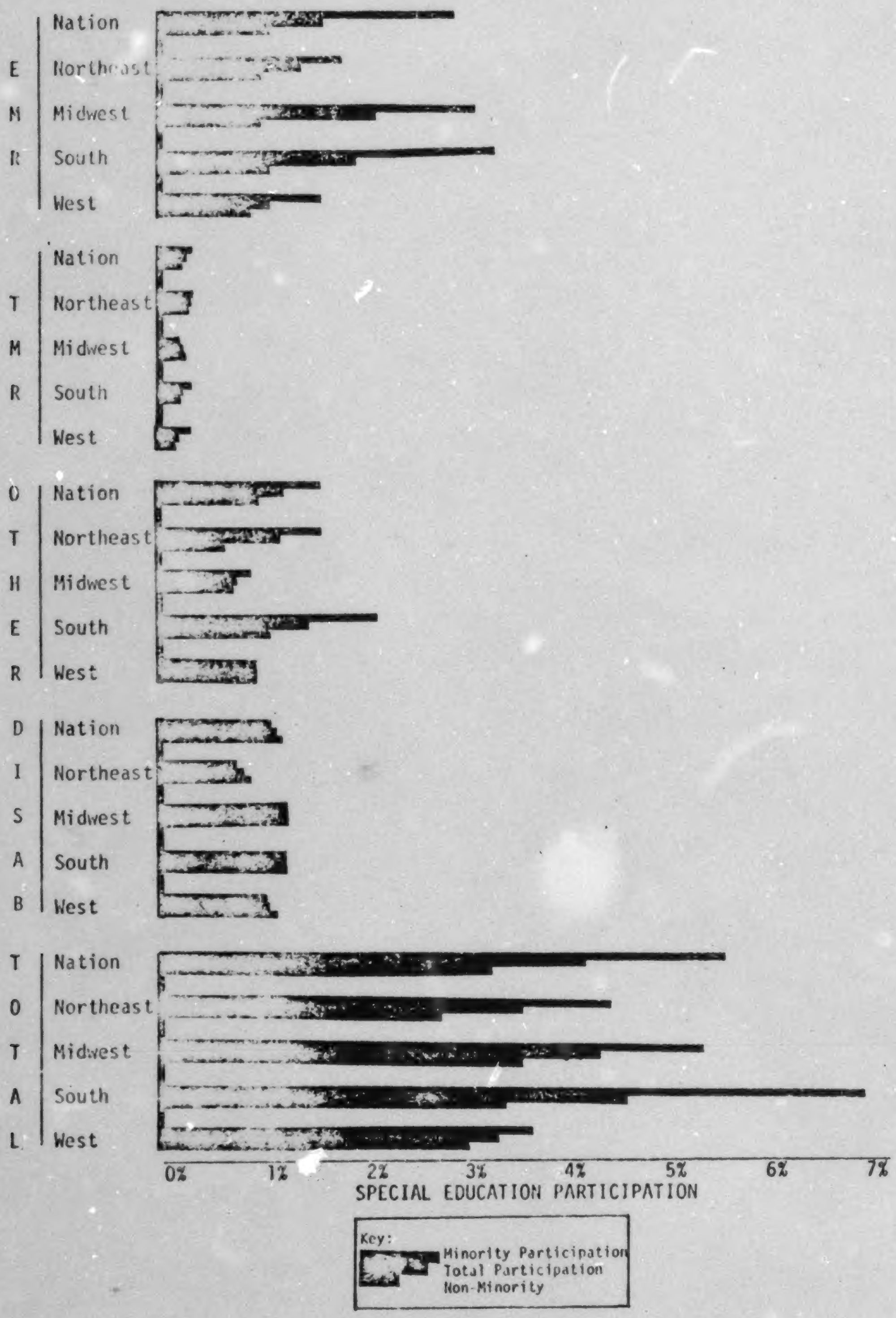
Key:
■ Minority Participation
■ Total Participation
■ Non-Minority

In this figure, if the three endpoints of a participation graph bar are close together, then minority and non-minority pupils participate at about the same rate. On the other hand, if the endpoints of a bar are far apart, then minorities and non-minorities participate in special education at very different rates.

Even a quick glance at Figure III.C.1 shows that racial imbalances are pronounced in EMR, Other, and Total programs. Additionally, the relative endpoints of a participation bar in Figure III.C.1 indirectly illustrate the racial composition of an area. If the total participation rate is closer to the non-minority than to the minority participation rate, the area

Figure III.C.1

Regional and National Special Education Participation



contains more non-minority pupils than minority pupils. Conversely, if the total rate is closer to the minority rate, then the area's school-age population is predominantly minority.

Figure III.C.2 shows that, at the national level, minority children are significantly over represented in total special education participation and in three of the four categories of special education programs. Any difference between minority/non-minority participation rates in the Special Disabilities category is probably meaningless (using the F-Ratio test), indicating that nationally minorities are not more likely to be chosen for programs for the blind, deaf, speech impaired or learning disabled.

The EMR column shows that minority children participate in EMR programs at a rate which is 60% higher than the overall minority percentages (37.7%), a larger racial disparity than the 20% increase in minority participation for TMR programs. These results would tend to confirm the hypothesis that while minority (predominantely black) children are more likely to be labelled retarded than non-minority children, children with extreme retardation (TMR) are treated in a more similar fashion with regard to racial ethnic background.

The Other category which includes programs for such disparate groups as emotionally disturbed children and slow learners is the most difficult category to draw accurate conclusions from. However, it is easy to see that minority children are clearly more likely to be placed into this category, (as well as into those programs identifying retardation) than non-minority children are.

The regional analyses of racial participation show striking and very different regional patterns of minority participation, indicating further that the connection between geographic location and the likelihood of certain children participating in special education is significant. For example, in the South, minorities are treated much differently than non-minorities are, while in the West children of all races are placed in special education at more nearly the same rates.

## Figure III.C.2

## Comparison of Minority/Non-Minority Special Education Program Enrollment

|  | AVERAGE PER DISTRICT |  |  |  |  |  |
|---|---|---|---|---|---|---|
|  | Total Enrollment | Total Special Education | EMR | TMR | Other | Disabilities |
| **Nation** |  |  |  |  |  |  |
| Total Enrollment | 13,708 | 554 | 217 | 33 | 154 | 149 |
| Minority Enrollment | 5,172 | 281 | 133 | 15 | 78 | 55 |
| Non-Minority Enrollment | 8,536 | 273 | 84 | 18 | 76 | 94 |
| Percent Minority | 37.7% | 50.7% | 61.3% | 45.5% | 50.6% | 36.9% |
| Percent Differences from Random Draw Expectation | --- | 34.5% | 62.6% | 20.7% | 34.2% | -2.1% |
| **Northeast** |  |  |  |  |  |  |
| Total Enrollment | 21,457 | 747 | 284 | 62 | 232 | 169 |
| Minority Enrollment | 10,864 | 464 | 189 | 32 | 164 | 78 |
| Non-Minority Enrollment | 10,592 | 283 | 94 | 30 | 68 | 91 |
| Percent Minority | 50.6% | 62.1% | 66.5% | 51.6% | 70.7% | 46.2% |
| Percent Differences from Random Draw Expectation | --- | 22.7% | 31.4% | 2.0% | 39.7% | -8.7% |
| **Midwest** |  |  |  |  |  |  |
| Total Enrollment | 17,202 | 719 | 350 | 40 | 129 | 201 |
| Minority Enrollment | 6,787 | 354 | 203 | 14 | 57 | 80 |
| Non-Minority Enrollment | 10,415 | 365 | 147 | 26 | 72 | 121 |
| Percent Minority | 39.5% | 49.2% | 58.0% | 35.0% | 44.2% | 39.8% |
| Percent Differences from Random Draw Expectation | --- | 24.6% | 46.8% | -11.4% | 11.9% | 0.8% |
| **South** |  |  |  |  |  |  |
| Total Enrollment | 12,258 | 558 | 218 | 30 | 166 | 144 |
| Minority Enrollment | 4,337 | 295 | 141 | 15 | 87 | 52 |
| Non-Minority Enrollment | 7,921 | 263 | 77 | 16 | 79 | 92 |
| Percent Minority | 35.4% | 52.9% | 64.7% | 50.0% | 52.4% | 36.1% |
| Percent Differences from Random Draw Expectation | --- | 49.4% | 82.8% | 41.2% | 48.0% | 2.0% |
| **West** |  |  |  |  |  |  |
| Total Enrollment | 12,148 | 385 | 121 | 25 | 113 | 126 |
| Minority Enrollment | 4,028 | 144 | 59 | 10 | 36 | 39 |
| Non-Minority Enrollment | 8,119 | 240 | 62 | 14 | 77 | 87 |
| Percent Minority | 33.2% | 37.4% | 48.8% | 40.0% | 31.9% | 31.0% |
| Percent Differences from Random Draw Expectation | --- | 12.7% | 47.0% | 20.5% | -3.9% | -6.6% |

The Northeast region shows a somewhat smaller over representation of minority children in special education when compared to the national level data. However, the distribution of participation in the four categories is important. The EMR column shows a sizeable increase for minority children, over 31%, while the TMR column shows a probably insignificant 2%. These figures mean that minorities participate in EMR at a rate which is 31% higher than the rate expected if race does not affect participation. Similarly, minorities participate in TMR at a rate which is just 2% higher than the rate predicted by a random draw. These findings seem to point to a lack of racial discrimination in the use of the TMR label, but significant discrimination in the application of the EMR label. The Other column again shows a large over representation, possibly due to the inclusion of Title I children in the count under the rubric of slow learner. The most surprising finding in the Northeast is that minority children are under represented by almost 9% in the Special Disabilities category. Possible reasons for under representation could include: 1) school districts with minority children have fewer facilities and personnel for physical or sensory handicaps and learning disabilities; 2) minority children exhibit fewer of these handicaps in school; or 3) minority children are more likely to be labeled as EMR than learning disabled and this accounts for some or all of the over representation in that category. The correct explanation probably contains all three factors, although the third reason may be most important, a supposition supported by the fact that the Northeast has the highest under representation in the Special Disabilities and significant minority over representation in EMR.

In the Midwest the over representation of minority students in special education is similar to that in the Northeast; however, participation in each of the specific programs varies considerably. The rate of participation for minority students in EMR programs is almost 47% higher than the rate expected if race has no affect on participation, but for TMR programs it is more than 11% lower. While this makes the total increase of minority participation in programs for the retarded similar to that in the Northeast, there is a definite tendency to identify fewer minority children as severely handicapped by retardation. The Other column shows that minorities are over represented by 12% in those programs; participation in the Special Disabilities programs does not appear to depend upon race at the regional level in the Midwest.

The South presents yet another pattern of racial participation. Minority children are involved in special education at a rate which is almost 50% higher than expected if a random draw model holds; three of the four program categories show large deviation from proportional representation. The EMR column shows minority children are in those programs at a rate 83% higher than in the school population. TMR and Other programs show rates of 41% and 48% respectively. Only in the Special Disabilities category does the rate of minority participation approximate the proportion of such children in the population. It is clear the schools in the South are much more likely than the other regions to have minority children in special education and the bulk of that excess is in programs for retarded children and other slow learners. However, the extreme racial imbalance in special education participation in the South does not mitigate circumstances in the other regions, where race also significantly affects participation in special education programs. One factor which could exacerbate minority/non-minority participation differences in the South is the generally lower economic level of this region. As we shall see in the next section, a student's financial status, as well as his ethnicity, affects his likelihood of being placed in special education programs.

The West, as a region, shows the least racial disparity between the general school-aged population and those students in special education. The fact that as a region it has the smallest percentage of minority children in the sample may partially account for this equity; however, sizeable discrepancies exist in both programs for the retarded -- 47% minority over representation for EMR's and 20.5% for TMR's. Another interesting factor is the 6.6% minority under representation in the Special Disabilities category, possibly indicating, as in the Northeast, that minority children are more likely to be labeled as EMR than as neurologically learning disabled. These statistics may be the first large scale evidence supporting that widely held belief. However, the generally high participation of minority children in EMR programs suggests the problem of racial differences in special education involves more than just alternative classifications, since the current study shows minorities are considerably more likely to be placed in overall special education.

In one respect, comparing rates of participation can be misleading. If we are dealing with a very small district, two participation rates (2% for non-minorities; 4% for minorities) which suggest racial discrimination could become equal if just one or two fewer minority children participated. For example, a 4% minority participation rate in a district could mean two out of 50 minority children are involved in special education; if just one of these children participated, the minority rate would be 2% - the same as for non-minorities.

In order to distinguish between cases where genuine racial discrepancies exist and cases where apparent discrepancies involve just a few children, we utilize an additional measure of bias in the ethnic composition of an area's special education enrollment. This measure tests the assumption that assignment to a special education program is a color-blind process - i.e., that minority children have the same likelihood of being served as non-minority children. Deviation, the name of this measure, gives the number of standard deviations which separates the actual number of special education students of a given ethnicity from the number expected if the ethnic compositon of a district's special education program reflects the ethnic composition of the district. A Deviation of greater than 3 indicates that we can, with 99% probability, reject the hypothesis that ethnicity does not affect likelihood of participation. By expressing this measure in terms of standard deviations, inequitable minority/non-minority participation rates which can be remedied with a shift of just a few students do not produce large Deviations and, therefore, do not indicate that a serious problem exists regarding the rates at which ethnicities participate.

Figure III.C.3 shows concisely that a student's ethnicity has a substantial affect on his likelihood of being placed in a special education program - particularly in EMR, Other, and overall programs. Almost all minority over representation in special education participation occurs for black pupils. Students of other minority extractions tend to be under represented while blacks are substantially over represented in special education programs.

Figure III.C.3

Number of Standard Deviations of Actual Special Education Enrollment From Expected Enrollment *

Total Minority Participation

| | EMR | TMR | Other | SD | Total |
|---|---|---|---|---|---|
| Nation | 14.3 | 2.8 | 10.8 | 5.5 | 12.8 |
| Northeast | 14.2 | 1.5 † | 21.7 | 3.5 | 18.3 |
| Midwest | 16.6 | 1.6 | 6.8 | 9.4 † | 10.0 |
| South | 14.7 | 3.2 | 11.0 | 5.3 | 14.2 |
| West | 9.4 | 3.7 | 4.0 | 3.5 | 6.9 |

Total Special Education Participation

| | Indian | Black | Asian | Spanish | Minority |
|---|---|---|---|---|---|
| Nation | --- | 13.3 | 2.5 † | 2.5 † | 12.8 |
| Northeast | --- | 17.2 | 6.9 † | 4.3 | 18.3 |
| Midwest | 1.2 † | 11.2 | 3.4 † | 2.2 † | 10.0 |
| South | 1.1 † | 14.8 | 1.0 † | 1.7 † | 14.2 |
| West | 1.7 | 8.0 | 3.5 † | 4.1 | 6.9 |

---

* Each table entry specifies the number of standard deviations that actual special education enrollment differs from the enrollment expected by the assumption that racial ethnic backgroun does not play a role in special education participation. A deviation of greater than 3 rejects this assumption.

† These entries correspond to under representation in the program.

## D. Socio-Economic and Demographic Analysis

The third level of analysis looks at the effect of several socio-economic variables on participation in special education programs. This analysis continues the focus on regional and racial differences as well. The socio-economic variables are drawn from school district characteristics reported in the 1970 Census. Although a three year difference exists between the collection of socio-economic and participation data, the level of aggregation and the nature of the data make it unlikely that large changes have occurred over such a short time. In addition, the data does accurately describe the response of a large sample of school districts to the educational needs of their pupils. While analyses of eleven separate socio-economic variables were carried out in the course of this study, our in-depth analysis will be limited to five familiar variables so that trends may be shown more clearly. All eleven reports, nonetheless, are contained in the Additional Findings section and in Appendix A.

The five variables chosen for complete explication are:

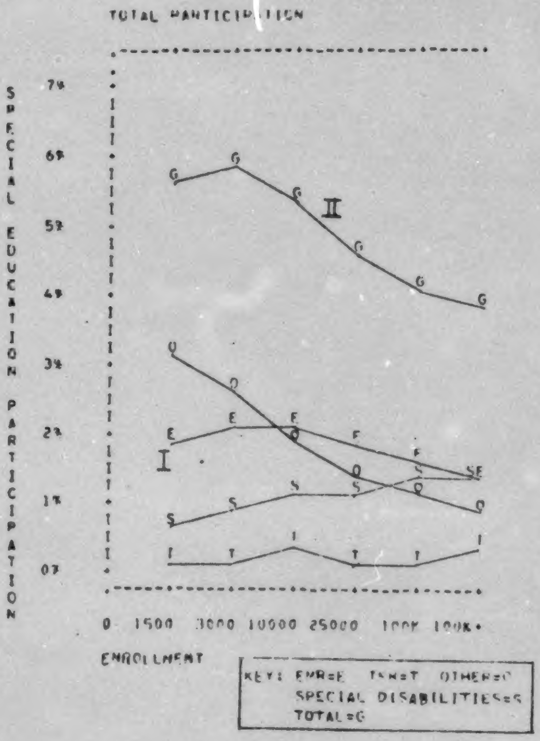
1. percent of families below the poverty level in a district
2. per capita income of the district
3. percent of a district's population classified as living in urban areas
4. percent of a school district's population classified as minority
5. the size of the enrollment of the school district.

The first two variables are expressive of school district wealth; the third is a demographic descriptor; the fourth allows a second level of analysis for racial characteristics; and the fifth investigates district size as a key factor in the distribution of programs.

Each variable is examined at the national and regional level, and for total, minority, and non-minority participation rates. National level graphs depicting the impact of these five variables upon special education participation precede the discussion of the variables. A discussion prefacing these graphs explains how to read and interpret them.

Concluding the section are tables of participation rates and associated F ratios and significance percentages. The significance percentage is the probability that observed trends are not the product of chance fluctuations.

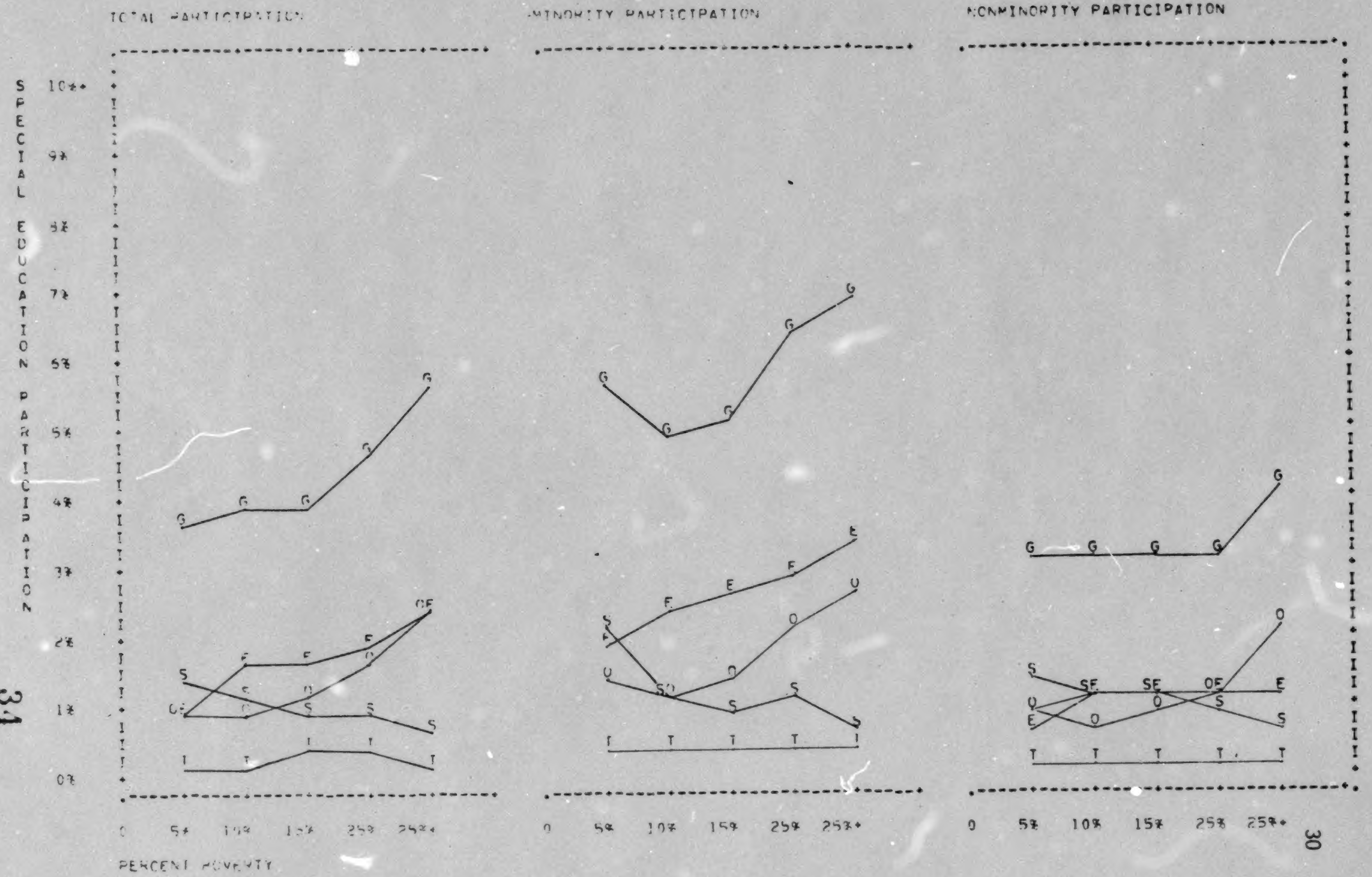
The impact of socio-economic conditions upon special education participation may be demonstrated with a graphical display. All districts in an area are divided into a few socio-economic categories (for this example, those with 0-1500, 1501-3000, 3001-10000, 10001-25000, 25001-100000, and over 100000 pupils enrolled). Average participation rates in each aspect of special education are then plotted for each category of districts. For example, in the illustrative graph on the right, point I indicates that, for districts with 0-1500 students, 2 out of every 100 pupils (2%) participate in EMR programs. General trends can be observed as follows: point II designates the trend line for total special education. The overall downward slope of the line suggests that as district enrollment increases, the rate of student participation in special education decreases. Graphs of this nature are included in this report for several socio-economic parameters on the regional and national level. Additionally, minority and non-minority, as well as total, participation are analyzed. A statistical measure, the F Ratio, is used to determine whether trends are statistically significant. A more detailed explanation of these graphical displays may be found in Section VII.C and in Appendix A.



Graphs depicting the impact of five socio-economic variables upon special education are presented on the following five pages.

PERCENT SPECIAL EDUCATION PARTICIPATION - PERCENT POVERTY

NATION



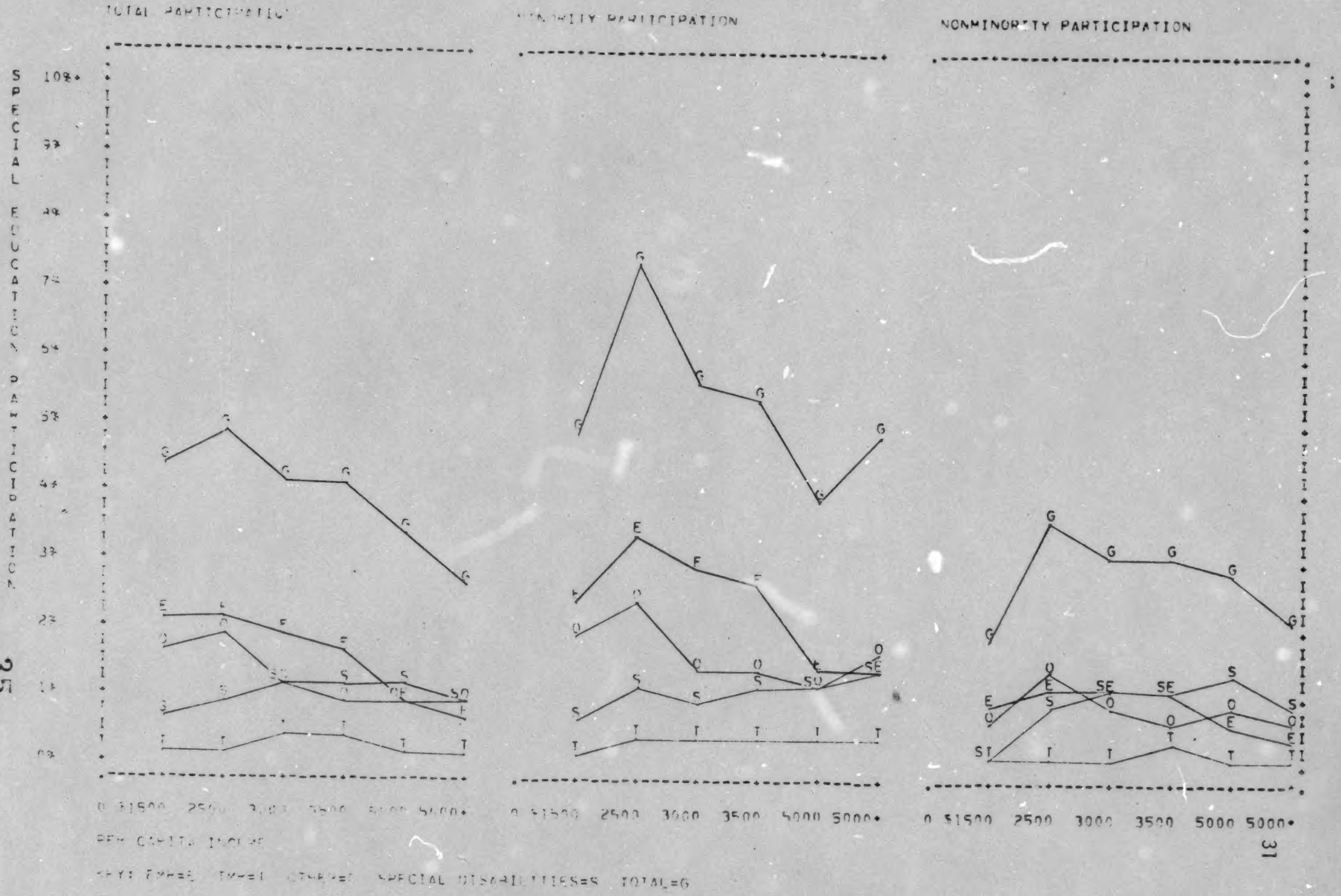
KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PER CAPITA INCOME

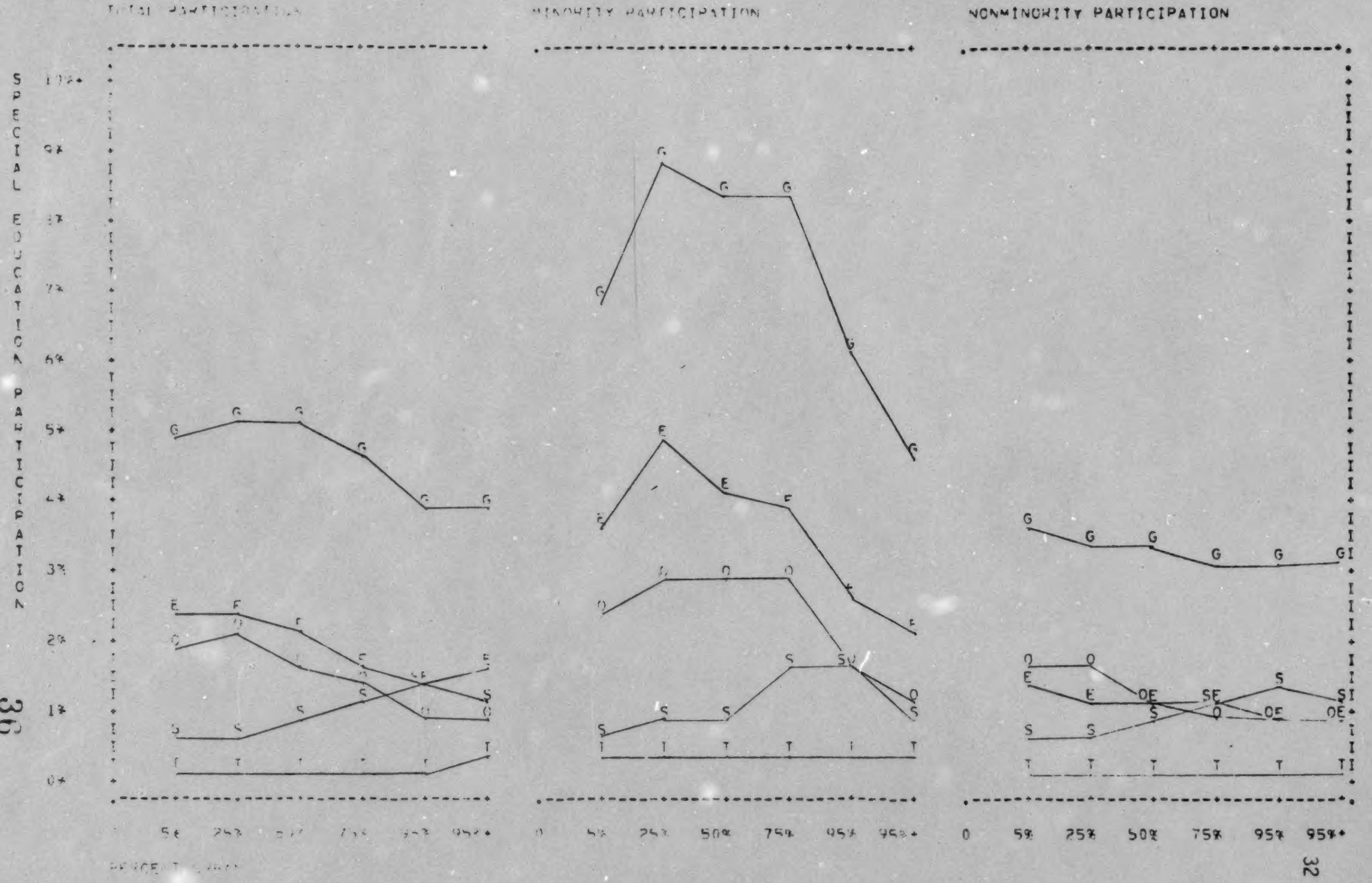
HEW/OASPE

NATION



PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT URBAN

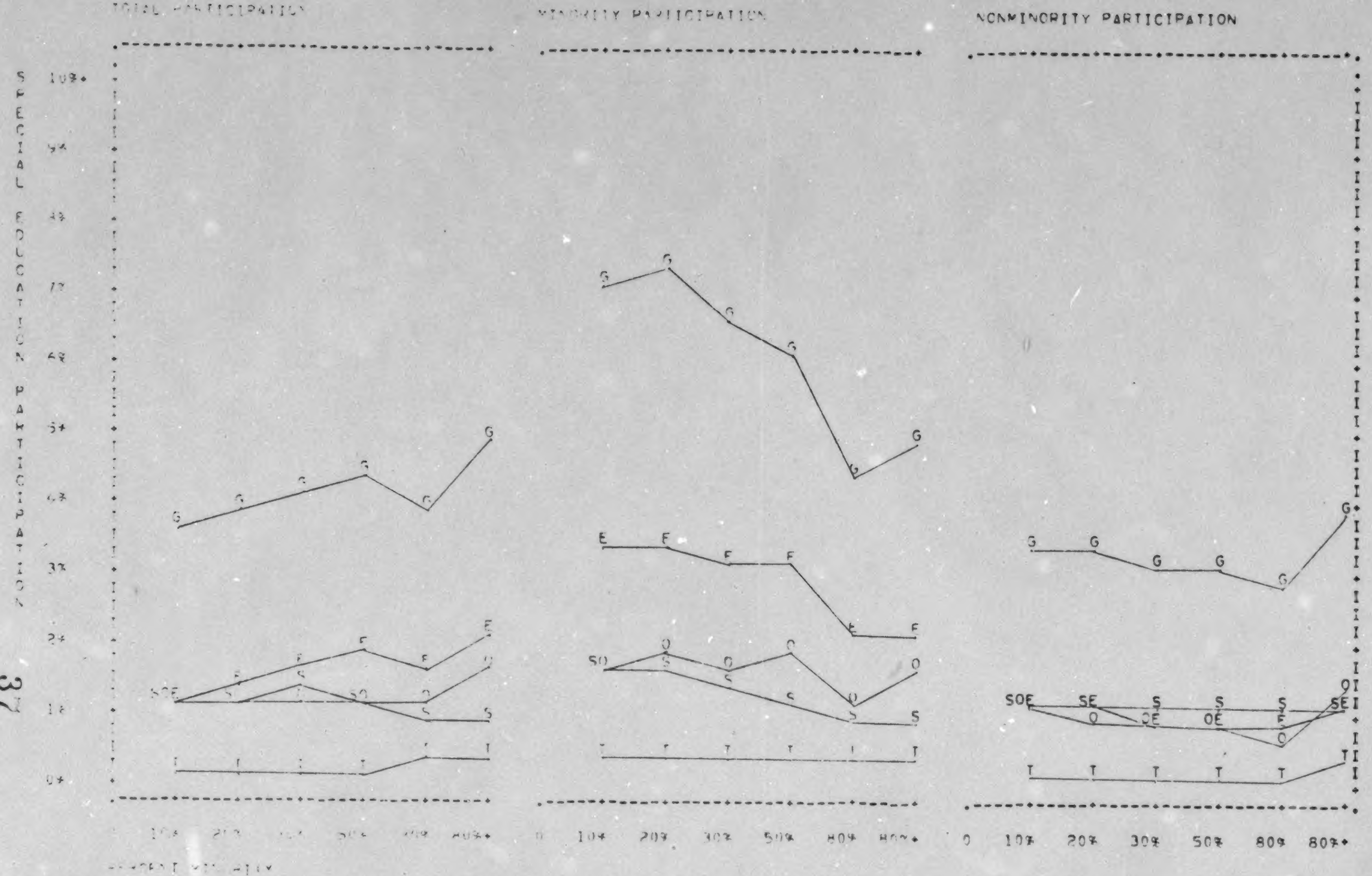
NATION



KEY: EMR=E TMR=T OTHER=O SPECIFIC DISABILITIES=S TOTAL=G

JUL 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY HEW/OASPE

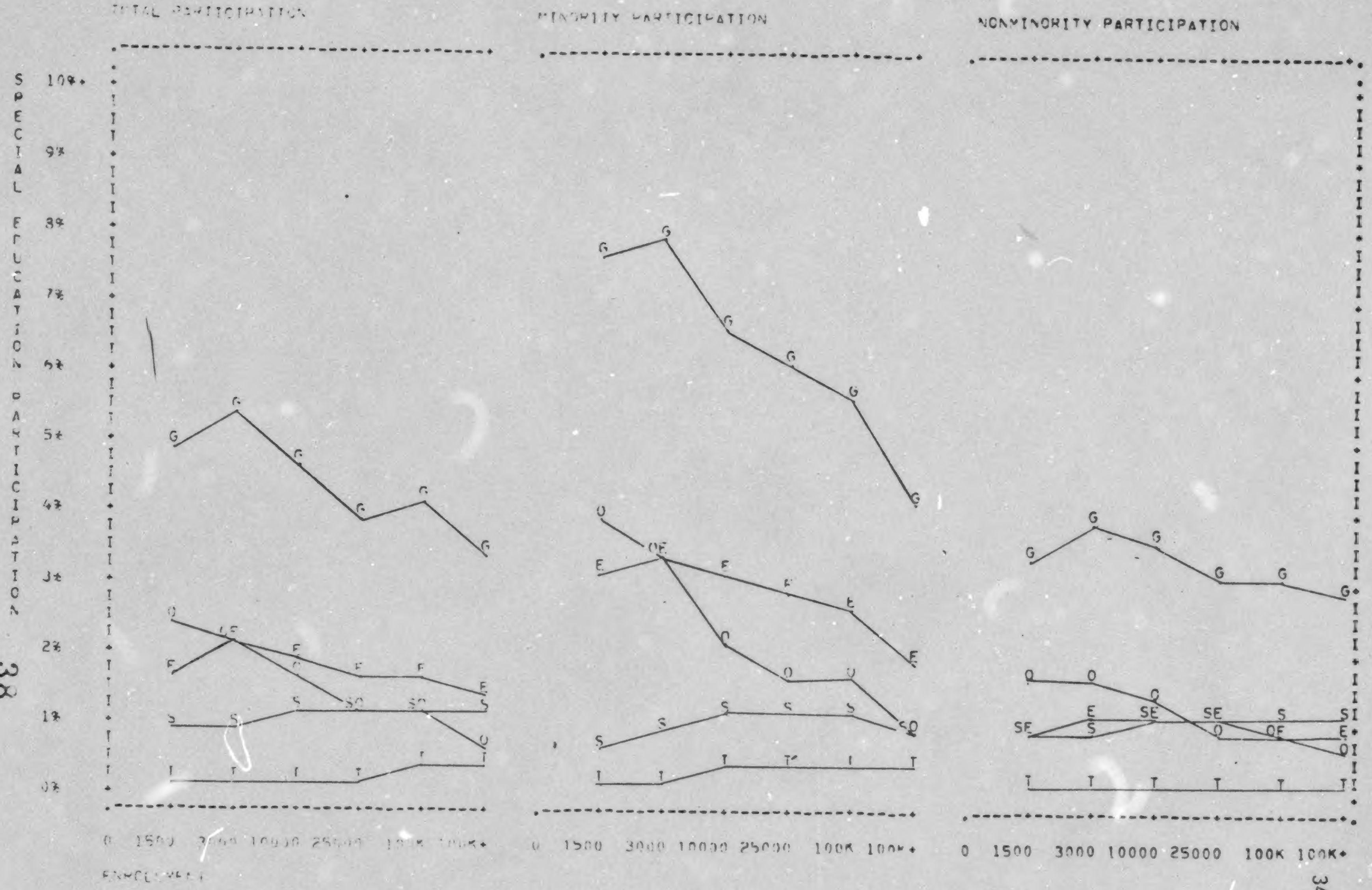
NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT

NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

At the national level, clear trends exist in total participation for all five variables: as poverty increases, total participation increases; as income decreases, total participation increases; as minority concentrations increase, total participation increases; as urbanization increases, total participation decreases; and, as enrollment increases, total participation decreases. A more concise way of expressing these findings is: as a school district becomes poorer, blacker, less urban and smaller, the total participation in special education increases. These movements, which represent up to 60% shifts in special education participation, are significant enough to confirm real patterns of discrimination in the distribution of special education participation. Three of the variables (poverty, income and enrollment) are significant at greater than .01 (that is, the probability that the observed rates are statistically different is greater than 99%). Urban rates are significant at above the .05 level and the probability that the participation rates for minority concentration are statistically different is almost 88%.

These gross trends in the characteristics of school districts special education programs are surprising. They simply do not confirm the widely held belief that, for the nation as a whole, the most extensive programs for the handicapped are in large, wealthy, urban or suburban districts; districts with greater sophistication and ability to finance the extra services required by these pupils. Further examination of the programatic components of total participation leads to even more striking conclusions about the distribution of programs for the handicapped.

An examination of one component of special education shows that EMR participation generally increases as the district becomes poorer, blacker, less urban, and smaller. The increases range from over 150% (increases from 1% rate to 2.5% rate) across the span of the wealth variables. Increases in EMR rates are more moderate as urbanization and racial composition vary; nevertheless, participation increases by about 50%. The relation of participation in EMR programs to the size of school districts is more complicated; however, the general trend is increasing EMR participation as size decreases.

Participation in the Other category (including emotionally disturbed children and slow learners) generally parallels the movements in the EMR category; however, the trends and percentage increases are even stronger. The parallel movement in these two categories is not surprising as the behavior exhibited by slow learners, emotionally disturbed, and mildly retarded children is often the same. Thus, the application of either a specific label (EMR) or placement in a general category (Other programs) may be primarily the result of local convention, rather than to a distinct difference in the child's behavior.

Participation in the Special Disabilities category increases as the district becomes richer, whiter and more urban, thereby establishing patterns diametrically opposed to those for EMR and Other. To the extent that one of the classifications included in this category is Specific Learning Disabilities (as defined by neurological disorder), this finding may support the belief that this label is replacing the more perjoritive EMR and Emotionally Disturbed labels in the larger, wealthier and whiter school districts. However, further examination of the racial participation rates and verification of this suspected use of the classification system is necessary before it can be determined that the manner of classifying students results in discriminatory labeling of individual children.

While strong graphic trends are largely absent from TMR programs, indicating that these socio-economic variables have little to do with the number of children placed in TMR programs at the district level, the movement in each graph is statistically significant at the .01 level and should be noted. It must be remembered, however, that many TMR children are not placed within a local district's programs, but rather are served at the state level. Very large and highly urban districts show sizeably larger programs for TMR children. More surprising is that very rich and very poor districts have fewer TMR children probably for very similar reasons. Poorer districts probably rely heavily on state programs for the retarded to bear the high cost of caring for the severely retarded while parents in rich districts may rely on private care facilities.

Many explanations could be given for these findings. A more careful examination and comparison of the racial participation trends for the five programs will help determine whether the observed trends are primarily related to minority enrollments or hold generally for the entire population. Our previous analysis of racial participation alone showed that minority children are much more likely to be identified as handicapped than non-minority children, a pattern existing at both national and all regional levels. When we compare the racial participation at the national level for each of the variables, the higher rates of participation for minorities are confirmed. However, whether for instance the concentration of poverty families in a school district has a differential effect on the number of black and white pupils receiving special education is somewhat obscured in the graphic presentation and requires further analysis.

An initial examination of the graphic presentation of participation rates for these five variables might lead to the conclusions that changing wealth, urbanization, racial composition, and school district size has virtually no effect on the participation of non-minority children, but strong effects on the rates for minority children. For example, this would mean that although a black child in a poor district would have a much greater chance than a black child in a rich district of being identified as handicapped, school district wealth wouldn't change a white child's chances of special education placement. However. when the actual participation rate percentage differences across a variable are examined, it becomes clear that socio-economic factors generally affect non-minority participation in the same way (although not as strongly) as minority participation.

Figure III.D.1 records the percentage changes for each of the five variables for three programatic components and total participation at the national level. The percentage differences reflect the two extremes of each variable (numbers in parentheses for Income and Enrollment represent percentage change after dropping extreme categories (containing less than 5% of the districts). Such percentages are only gross measures of change, as several of the trends are not straight lines.

## Figure III.D.1

## Percentage Differences in Participation *

| | TOTAL | MINORITY | NON-MINORITY |
|---|---|---|---|
| POVERTY | | | |
| EMR | 63% | 73% | 71% |
| OTHER | 150% | 80% | 59% |
| DISABILITIES | -60% | -66% | -64% |
| TOTAL | 58% | 21% | 25% |
| INCOME ** | | | |
| EMR | -57% | (-60%) | (-50%) |
| OTHER | (-50%) | (-54%) | (-35%) |
| DISABILITIES | (33%) | (0%) | (62%) |
| TOTAL | (-34%) | (-48%) | (-17%) |
| % URBAN | | | |
| EMR | -34% | -40% | -23% |
| OTHER | -47% | -47% | -50% |
| DISABILITIES | 83% | 100% | 83% |
| TOTAL | -22% | -33% | -11% |
| % MINORITY | | | |
| EMR | 66% | -38% | 20% |
| OTHER | 54% | 0% | 27% |
| DISABILITIES | -27% | -50% | -16% |
| TOTAL | 30% | -37% | 14% |
| ENROLLMENT ** | | | |
| EMR | (-11%) | (-44%) | (-10%) |
| OTHER | (-52%) | (-55%) | (-46%) |
| DISABILITIES | (50%) | (57%) | (50%) |
| TOTAL | (-16%) | [illegible]8%) | (-5%) |

* Each table entry is the percentage change between low and high participation rates. A positive percentage indicates an increasing trend while a negative percentage indicates a decreasing trend.

** Numbers in parentheses for Income and Enrollment represent percentage differences after dropping extreme categories containing less than 5% of districts.

For poverty, the percentage differences in all four areas of special education are quite similar for minority and non-minority children. The fact that poverty affects the participation of children of all ethnicities in much the same way suggests that poverty is a primary factor in determining both minority and non-minority likelihood of receiving special education. An analysis of racial differences in the effect of per capita income (another measure of wealth) upon participation becomes clear if we concentrate on these districts comprising almost 95% of the sample (ignoring districts with $0 - $1,500 and over $5,000 per capita income). While both minority and non-minority participation decline as income rises, it is clear that minority children are somewhat more likely to feel the effects of the district's per capita income than their non-minority counterparts.

The impact of urbanization on district participation shows only slight differences in the rates at which minority and non-minority pupils are assigned to Special Disabilities and Other programs. However, EMR and Total minority participation declines at a greater rate than non-minority participation as district urbanization increases.

Districts with a high concentration of minority pupils show striking differences in the assignment of pupils to special education when compared to districts with low minority populations. Minority participation rates for overall special education and for EMR programs, in particular, are extremely sensitive to the percentage of minority pupils in the district. As minority pupils assume larger percentages of district enrollment, participation declines drastically, falling from a high of 7.3% total participation to a low of 4.5%. Non-minority involvement in special education on the other hand, does not depend, to this extent, on percent minority. A possible explanation for these results is the following: placing minority students in special education programs is more prevalent in districts with low minority concentrations where minority pupils are most "visible" than in districts with considerable minority enrollment.

Finally, Figure III.D.1 illustrates the fact that while in many instances socio-economic factors have greater impact on minority than non-minority participation, such factors also affect non-minority participation. It should also be noted that F ratio analysis demonstrates that non-minority trends in Total participation are more likely, than corresponding minority trends, to be the product of chance fluctuations.

In summing up the analysis of the five socio-economic variables at the national level, we can conclude the following:

1. Total participation in special education increases as districts become poorer, blacker, less urban and have fewer pupils.
2. Participation in the EMR and Other categories also increases as districts become poorer, blacker, less urban and have fewer pupils.
3. Special Disabilities participation increases as districts become richer, whiter, more urban and have more pupils, although this trend is overpowered by the counter trend in EMR and Other.
4. TMR trends are not as pronounced as those in the other three categories but participation increases in TMR programs do occur in very large and highly urban districts. Very rich and very poor districts as measured by both wealth variables have fewer children in TMR programs.
5. Minority children are much more likely to be in programs for the handicapped than non-minority children.
6. While for many of the categories, minority children are more likely to be caught in an increasing trend in participation, all the variables show trends for both minority and non-minority children which match the trends for total participation.

Regional analysis of participation for the five socio-economic variables is somewhat problematic. Graphic representations of trends are more irregular than the national trends and for many of the data sets the probability that they are statistically significant is not great. Therefore, for purposes of analysis, only those trends with a probability greater than 90% will be examined. Due to the larger number of districts sampled by OCR in the South and West, analysis of trends in the Northeast and Midwest is relatively limited; however, it should be noted in summary that significant regional trends vary only slightly from previously observed national trends and are primarily useful in confirming that national trends are not being driven by any one region. For that reason these trends will be listed and comments reserved for unusual movement.

In the Northeast: (1) as poverty increases, EMR participation increases, TMR participation increases; (2) as income decreases, EMR increases, SD decreases slightly; (3) as percent urban increases, EMR moves around a stable level, TMR increases at extreme (over 95%) urban; (4) as minorities increase, EMR and TMR increase; and (5) as enrollment increases, TMR increases. In this region, the only trend not matching national trends is the absence of a decrease in EMR participation as districts become less urban, although this is probably related to the high percentage of urban population in the Northeast and low representation of rural districts in the sample.

Only six trends were significant in the Midwest, all involving Special Disabilities and Other participation. They are: (1) as poverty increases, Other increases, SD decreases; (2) as percent urban increases, Other participation drops, SD rises; and (3) as enrollment increases, Other decreases, SD increases. All six trends match the national trends.

The South has the largest number of significant trends, probably due to the large number of Southern districts in the sample. They are: (1) as poverty increases, Other and EMR increase, Special Disabilities decreases and TMR shows irregular movement; (2) as income increases, EMR decreases, Special Disabilities increases and TMR shows a complementary movement to that for poverty; (3) as percent urban increases, EMR decreases except in the most urban districts, and Special Disabilities increases except in the most urban; (4) as percent minority increases, EMR increases; and (5) as enrollment increases, Other, EMR and Total participation increase, Special Disabilities decreases and TMR increases slightly. The movements which do not precisely follow the national trends in the South are probably due to unusual socioeconomic characteristics of Southern school districts (districts were significantly poorer, blacker, less urban and smaller than the national or other regional averages), and thus may provide some basis for explaining regional differences in participation.

In the West, the region with the second largest number of districts in the sample, there are also sizeable numbers of trends. They are: (1) as poverty increases, Special Disabilities decreases, EMR increases; (2) as income increases, Other decreases, Special Disabilities increases and EMR participation remains relatively constant; (3) as percent urban increases, both Other and EMR show slight drops in participation; (4) as percent minority increases, Total participation changes sharply and decreases only slightly, Other and Special Disabilities decrease, with a sharp increase at extremely high minority percentage for Other; and (5) as enrollment increases, Total, Other, EMR, and TMR all follow the national trends. The irregular trends in the West include the lack of change in EMR participation as income rises and the absence of a clear trend in Total participation for percent minority. These anomalous trends here and in the South may also be helpful in determining whether significant regional differences in participation patterns do occur.

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- EMR | TMR | OTHER | DISAB | TOTAL | --MINORITY % PARTICIPATION-- EMR | TMR | OTHER | DISAB | TOTAL | NONMINORITY % PARTICIPATION EMR | TMR | OTHER | DISAB | TOTAL | NUM DIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NATION | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.9 | 0.2 | 1.0 | 1.5 | 3.6 | 1.9 | 0.3 | 1.5 | 2.1 | 5.7 | 0.7 | 0.2 | 0.9 | 1.4 | 3.2 | 259 |
| 06-10% POVERTY | 1.6 | 0.2 | 0.9 | 1.1 | 3.8 | 2.5 | 0.3 | 1.1 | 1.1 | 5.0 | 1.0 | 0.2 | 0.7 | 1.1 | 3.1 | 385 |
| 11-15% POVERTY | 1.7 | 0.3 | 1.1 | 1.0 | 4.0 | 2.5 | 0.3 | 1.4 | 0.9 | 5.1 | 1.1 | 0.2 | 0.8 | 1.0 | 3.1 | 299 |
| 16-25% POVERTY | 1.9 | 0.3 | 1.6 | 0.9 | 4.6 | 2.8 | 0.3 | 2.1 | 1.0 | 6.3 | 1.1 | 0.2 | 1.1 | 0.8 | 3.2 | 320 |
| OVER 25% POVERTY | 2.4 | 0.2 | 2.5 | 0.6 | 5.7 | 3.3 | 0.3 | 2.7 | 0.7 | 6.9 | 1.2 | 0.1 | 2.2 | 0.5 | 4.0 | 279 |
| F-RATIO | 26.43 | 3.35 | 9.61 | 10.99 | 9.34 | 14.71 | 3.10 | 5.75 | 9.69 | 7.27 | 7.43 | 5.37 | 4.59 | 14.96 | 0.99 | |
| SIGNIFICANCE % | 99.99 | 99.02 | 99.99 | 99.99 | 99.99 | 99.99 | 98.52 | 99.97 | 99.99 | 99.90 | 99.99 | 99.95 | 99.86 | 99.99 | 58.57 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.0 | 0.2 | 1.0 | 1.3 | 3.4 | 2.2 | 0.2 | 2.0 | 1.8 | 6.1 | 0.7 | 0.2 | 0.7 | 1.2 | 2.7 | 69 |
| 06-10% POVERTY | 1.8 | 0.4 | 1.3 | 0.7 | 4.3 | 2.5 | 0.4 | 2.2 | 0.7 | 5.7 | 1.2 | 0.4 | 0.6 | 0.8 | 3.0 | 50 |
| 11-15% POVERTY | 1.0 | 0.3 | 1.0 | 0.6 | 2.9 | 1.2 | 0.3 | 1.2 | 0.6 | 3.3 | 0.7 | 0.3 | 0.6 | 0.7 | 2.2 | 17 |
| 16-25% POVERTY | 2.0 | 0.3 | 0.4 | 0.8 | 3.5 | 2.1 | 0.3 | 0.4 | 0.8 | 3.7 | 1.2 | 0.4 | 0.4 | 0.8 | 2.7 | 3 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 11.79 | 3.76 | 0.29 | 1.71 | 0.11 | 0.50 | 4.89 | 0.58 | 2.12 | 0.76 | 9.01 | 3.10 | 0.35 | 1.38 | 0.06 | |
| SIGNIFICANCE % | 99.99 | 98.76 | 16.36 | 83.25 | 5.22 | 31.54 | 99.67 | 36.53 | 90.02 | 47.88 | 99.99 | 97.17 | 21.06 | 75.10 | 2.24 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.3 | 0.3 | 0.5 | 0.9 | 3.4 | 3.0 | 0.3 | 1.8 | 0.9 | 5.9 | 1.0 | 0.3 | 0.7 | 0.8 | 2.8 | 67 |
| 06-10% POVERTY | 2.1 | 0.2 | 0.7 | 1.3 | 4.3 | 3.0 | 0.2 | 0.7 | 1.4 | 5.3 | 1.5 | 0.2 | 0.6 | 1.3 | 3.6 | 86 |
| 11-15% POVERTY | 2.9 | 0.2 | 0.7 | 0.8 | 4.6 | 3.2 | 0.1 | 0.7 | 0.5 | 4.5 | 2.5 | 0.3 | 0.8 | 1.3 | 4.8 | 23 |
| 16-25% POVERTY | 1.3 | 0.3 | 1.8 | 1.0 | 4.5 | 1.5 | 0.4 | 0.7 | 0.4 | 2.9 | 1.0 | 0.3 | 4.0 | 2.5 | 7.8 | 11 |
| OVER 25% POVERTY | 3.4 | 0.0 | 3.0 | 0.5 | 6.9 | 5.1 | 0.0 | 3.2 | 0.6 | 9.0 | 1.6 | 0.1 | 2.9 | 0.3 | 4.9 | 15 |
| F-RATIO | 1.93 | 1.65 | 2.35 | 2.11 | 1.24 | 0.97 | 2.66 | 2.03 | 1.25 | 1.03 | 2.17 | 1.51 | 1.51 | 2.30 | 1.12 | |
| SIGNIFICANCE % | 87.68 | 83.78 | 94.50 | 92.03 | 70.61 | 57.56 | 96.67 | 90.98 | 71.16 | 60.43 | 92.75 | 80.01 | 80.03 | 94.11 | 65.33 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.8 | 0.3 | 0.7 | 1.9 | 3.7 | 1.9 | 0.4 | 1.0 | 3.8 | 7.1 | 0.6 | 0.3 | 0.7 | 1.6 | 3.2 | 34 |
| 06-10% POVERTY | 1.5 | 0.2 | 0.9 | 1.4 | 4.0 | 3.2 | 0.4 | 1.4 | 1.4 | 6.4 | 0.9 | 0.2 | 0.8 | 1.3 | 3.2 | 100 |
| 11-15% POVERTY | 2.0 | 0.3 | 1.2 | 1.1 | 4.6 | 3.6 | 0.4 | 1.7 | 1.1 | 6.8 | 1.1 | 0.2 | 0.9 | 1.1 | 3.3 | 195 |
| 16-25% POVERTY | 1.9 | 0.3 | 1.7 | 0.9 | 4.8 | 3.0 | 0.4 | 2.3 | 1.1 | 6.8 | 1.1 | 0.2 | 1.2 | 0.8 | 3.3 | 258 |
| OVER 25% POVERTY | 2.5 | 0.2 | 2.5 | 0.7 | 5.3 | 3.4 | 0.3 | 2.7 | 0.8 | 7.1 | 1.2 | 0.1 | 2.2 | 0.5 | 4.1 | 241 |
| F-RATIO | 8.36 | 2.30 | 3.03 | 10.22 | 1.56 | 5.30 | 3.61 | 1.43 | 12.78 | 1.82 | 3.15 | 8.11 | 1.54 | 13.52 | 0.33 | |
| SIGNIFICANCE % | 99.99 | 94.40 | 98.32 | 99.99 | 81.79 | 99.94 | 99.34 | 77.86 | 99.99 | 87.77 | 98.62 | 99.99 | 81.25 | 99.99 | 13.85 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.7 | 0.2 | 1.2 | 1.6 | 3.7 | 1.0 | 0.2 | 1.3 | 1.8 | 4.4 | 0.7 | 0.2 | 1.2 | 1.5 | 3.5 | 89 |
| 06-10% POVERTY | 1.1 | 0.2 | 0.8 | 0.9 | 3.0 | 1.5 | 0.3 | 0.7 | 0.9 | 3.4 | 0.8 | 0.2 | 0.9 | 0.9 | 2.8 | 149 |
| 11-15% POVERTY | 1.1 | 0.2 | 0.7 | 0.6 | 2.8 | 1.5 | 0.3 | 0.8 | 0.8 | 3.5 | 0.8 | 0.2 | 0.7 | 0.8 | 2.5 | 64 |
| 16-25% POVERTY | 1.4 | 0.2 | 0.9 | 0.5 | 3.0 | 1.9 | 0.3 | 1.2 | 0.5 | 3.8 | 0.9 | 0.1 | 0.7 | 0.5 | 2.3 | 48 |
| OVER 25% POVERTY | 1.3 | 0.2 | 1.7 | 0.3 | 3.6 | 1.4 | 0.2 | 1.9 | 0.3 | 3.9 | 0.9 | 0.2 | 0.7 | 0.4 | 2.2 | 23 |
| F-RATIO | 7.10 | 0.68 | 1.42 | 4.35 | 1.02 | 4.59 | 0.36 | 0.47 | 3.64 | 0.89 | 3.38 | 1.11 | 0.66 | 5.11 | 1.35 | |
| SIGNIFICANCE % | 99.99 | 39.07 | 77.38 | 99.78 | 60.44 | 99.84 | 16.09 | 24.19 | 99.33 | 52.89 | 99.00 | 64.90 | 37.61 | 99.92 | 74.88 | |

| GEOGRAPHIC AREA<br>ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 2.0 | 0.2 | 1.6 | 0.5 | 4.3 | 2.3 | 0.2 | 1.8 | 0.6 | 4.9 | 1.0 | 0.1 | 0.6 | 0.2 | 1.9 | 71 |
| 1501 - 2500 DOLLARS INCOME | 2.1 | 0.2 | 1.8 | 0.9 | 5.0 | 3.5 | 0.3 | 2.4 | 1.1 | 7.3 | 1.2 | 0.2 | 1.4 | 0.8 | 3.5 | 624 |
| 2501 - 3000 DOLLARS INCOME | 1.8 | 0.3 | 1.0 | 1.1 | 4.1 | 3.0 | 0.3 | 1.4 | 1.0 | 5.7 | 1.1 | 0.2 | 0.8 | 1.1 | 3.2 | 408 |
| 3001 - 3500 DOLLARS INCOME | 1.7 | 0.3 | 0.9 | 1.2 | 4.1 | 2.7 | 0.3 | 1.3 | 1.1 | 5.4 | 1.1 | 0.3 | 0.7 | 1.2 | 3.2 | 261 |
| 3501 - 5000 DOLLARS INCOME | 0.9 | 0.2 | 0.9 | 1.2 | 3.3 | 1.4 | 0.3 | 1.1 | 1.1 | 3.8 | 0.6 | 0.2 | 0.9 | 1.3 | 2.9 | 158 |
| OVER 5000 DOLLARS INCOME | 0.7 | 0.2 | 0.8 | 0.9 | 2.6 | 1.4 | 0.3 | 1.7 | 1.4 | 4.8 | 0.5 | 0.2 | 0.7 | 0.8 | 2.1 | 20 |
| F-RATIO | 17.19 | 2.55 | 6.04 | 6.09 | 5.19 | 15.95 | 2.02 | 3.59 | 6.27 | 6.35 | 6.57 | 4.60 | 3.38 | 9.52 | 0.66 | |
| SIGNIFICANCE % | 99.99 | 97.41 | 99.99 | 99.99 | 99.98 | 99.99 | 92.76 | 99.65 | 99.09 | 99.99 | 99.99 | 99.94 | 99.49 | 99.99 | 34.68 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| 1501 - 2500 DOLLARS INCOME | 1.8 | 0.3 | 0.5 | 1.0 | 3.6 | 2.1 | 0.3 | 0.5 | 0.9 | 3.8 | 1.2 | 0.2 | 0.6 | 1.3 | 3.3 | 5 |
| 2501 - 3000 DOLLARS INCOME | 1.6 | 0.3 | 0.7 | 0.7 | 3.3 | 2.7 | 0.3 | 1.1 | 0.6 | 4.7 | 1.1 | 0.3 | 0.6 | 0.7 | 2.6 | 40 |
| 3001 - 3500 DOLLARS INCOME | 1.8 | 0.4 | 1.3 | 0.7 | 4.2 | 2.5 | 0.4 | 2.1 | 0.6 | 5.6 | 1.2 | 0.4 | 0.6 | 0.7 | 2.9 | 46 |
| 3501 - 5000 DOLLARS INCOME | 0.9 | 0.2 | 1.1 | 0.9 | 3.1 | 1.1 | 0.2 | 1.3 | 0.8 | 3.5 | 0.6 | 0.2 | 0.7 | 1.0 | 2.5 | 40 |
| OVER 5000 DOLLARS INCOME | 0.7 | 0.2 | 0.9 | 0.8 | 2.7 | 1.3 | 0.2 | 1.7 | 1.0 | 4.2 | 0.5 | 0.2 | 0.5 | 0.8 | 2.0 | 8 |
| F-RATIO | 7.76 | 1.37 | 0.39 | 2.57 | 0.74 | 5.47 | 1.57 | 0.76 | 2.61 | 0.93 | 7.57 | 1.16 | 0.26 | 2.33 | 0.74 | |
| SIGNIFICANCE % | 99.99 | 75.32 | 18.14 | 95.99 | 43.41 | 99.93 | 81.59 | 44.69 | 96.22 | 55.19 | 99.99 | 66.82 | 9.95 | 94.17 | 43.29 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 0.3 | 0.0 | 2.2 | 0.0 | 2.6 | 0.5 | 0.1 | 2.2 | 0.0 | 2.8 | 0.0 | 0.0 | 2.2 | 0.0 | 2.2 | 3 |
| 1501 - 2500 DOLLARS INCOME | 2.1 | 0.2 | 1.6 | 1.0 | 4.8 | 2.9 | 0.2 | 1.4 | 0.7 | 5.2 | 1.5 | 0.1 | 1.7 | 1.2 | 4.5 | 37 |
| 2501 - 3000 DOLLARS INCOME | 2.4 | 0.2 | 0.7 | 0.8 | 4.0 | 3.2 | 0.2 | 0.8 | 0.6 | 4.7 | 1.9 | 0.2 | 0.6 | 0.9 | 3.6 | 56 |
| 3001 - 3500 DOLLARS INCOME | 2.1 | 0.3 | 0.7 | 1.3 | 4.3 | 3.0 | 0.2 | 0.8 | 1.4 | 5.4 | 1.4 | 0.3 | 0.6 | 1.3 | 3.6 | 80 |
| 3501 - 5000 DOLLARS INCOME | 0.8 | 0.1 | 1.1 | 0.6 | 2.6 | 1.6 | 0.1 | 1.8 | 0.3 | 3.8 | 0.5 | 0.1 | 0.9 | 0.7 | 2.3 | 21 |
| OVER 5000 DOLLARS INCOME | 0.9 | 0.3 | 0.7 | 1.1 | 3.0 | 2.0 | 0.4 | 1.2 | 2.0 | 5.6 | 0.5 | 0.3 | 0.6 | 0.8 | 2.2 | 5 |
| F-RATIO | 1.27 | 0.31 | 1.22 | 0.76 | 0.72 | 1.11 | 0.79 | 0.94 | 0.64 | 0.79 | 1.34 | 0.29 | 0.97 | 0.78 | 0.58 | |
| SIGNIFICANCE % | 72.26 | 9.23 | 69.91 | 41.52 | 38.92 | 64.21 | 43.76 | 54.02 | 33.08 | 43.96 | 75.27 | 8.06 | 55.92 | 43.08 | 27.85 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 2.1 | 0.2 | 1.5 | 0.6 | 4.3 | 2.4 | 0.2 | 1.7 | 0.6 | 4.9 | 1.0 | 0.1 | 0.5 | 0.2 | 1.8 | 59 |
| 1501 - 2500 DOLLARS INCOME | 2.2 | 0.2 | 1.9 | 0.9 | 5.2 | 3.8 | 0.3 | 2.7 | 1.1 | 8.0 | 1.2 | 0.2 | 1.4 | 0.8 | 3.5 | 493 |
| 2501 - 3000 DOLLARS INCOME | 1.9 | 0.3 | 1.2 | 1.1 | 4.5 | 3.4 | 0.4 | 1.7 | 1.1 | 6.6 | 1.1 | 0.2 | 0.8 | 1.1 | 3.3 | 188 |
| 3001 - 3500 DOLLARS INCOME | 1.4 | 0.3 | 1.1 | 1.3 | 4.0 | 2.7 | 0.3 | 1.8 | 1.2 | 6.0 | 0.8 | 0.2 | 0.8 | 1.3 | 3.1 | 63 |
| 3501 - 5000 DOLLARS INCOME | 1.0 | 0.2 | 0.9 | 2.1 | 4.2 | 2.2 | 0.3 | 1.1 | 2.5 | 6.1 | 0.6 | 0.2 | 0.8 | 2.0 | 3.6 | 22 |
| OVER 5000 DOLLARS INCOME. | 0.5 | 0.3 | 0.8 | 0.7 | 2.4 | 1.5 | 0.3 | 1.5 | 1.4 | 4.7 | 0.4 | 0.3 | 0.7 | 0.6 | 2.0 | 3 |
| F-RATIO | 5.32 | 3.42 | 1.49 | 6.96 | 0.72 | 5.70 | 4.51 | 0.61 | 9.84 | 1.83 | 3.38 | 7.10 | 0.93 | 10.33 | 0.41 | |
| SIGNIFICANCE % | 99.98 | 99.51 | 81.08 | 99.99 | 39.03 | 99.99 | 99.93 | 30.81 | 99.99 | 89.70 | 99.47 | 99.99 | 53.89 | 99.99 | 15.72 | |
| WEST | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 1.0 | 0.2 | 2.6 | 0.3 | 4.1 | 1.0 | 0.2 | 2.8 | 0.3 | 4.3 | 1.0 | 0.2 | 1.0 | 0.2 | 2.4 | 9 |
| 1501 - 2500 DOLLARS INCOME | 1.2 | 0.2 | 1.5 | 0.7 | 3.6 | 1.7 | 0.3 | 1.5 | 0.6 | 4.1 | 0.9 | 0.1 | 1.4 | 0.8 | 3.3 | 89 |
| 2501 - 3000 DOLLARS INCOME | 1.1 | 0.2 | 1.0 | 1.1 | 3.3 | 1.5 | 0.2 | 0.9 | 1.0 | 3.7 | 0.9 | 0.2 | 1.0 | 1.2 | 3.2 | 124 |
| 3001 - 3500 DOLLARS INCOME | 1.1 | 0.2 | 0.8 | 1.0 | 3.1 | 1.5 | 0.2 | 0.9 | 1.0 | 3.6 | 0.9 | 0.2 | 0.9 | 1.0 | 2.9 | 72 |
| 3501 - 5000 DOLLARS INCOME | 0.9 | 0.2 | 0.8 | 1.1 | 3.0 | 1.4 | 0.3 | 0.7 | 1.0 | 3.4 | 0.6 | 0.2 | 0.9 | 1.1 | 2.8 | 75 |
| OVER 5000 DOLLARS INCOME | 0.9 | 0.0 | 1.3 | 1.3 | 3.3 | 0.8 | 0.1 | 3.1 | 2.1 | 6.1 | 0.9 | 0.0 | 0.7 | 1.1 | 2.8 | 4 |
| F-RATIO | 2.11 | 0.23 | 2.50 | 2.47 | 0.54 | 1.33 | 0.31 | 1.35 | 1.69 | 0.38 | 1.71 | 1.83 | 0.87 | 3.15 | 1.01 | |
| SIGNIFICANCE % | 93.70 | 5.42 | 97.01 | 96.84 | 25.00 | 75.18 | 9.38 | 76.04 | 86.47 | 13.75 | 86.92 | 89.50 | 49.57 | 99.14 | 58.94 | |

# PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY

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| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION--- EMR | TMR | OTHER | DISAB | TOTAL | --MINORITY % PARTICIPATION-- EMR | TMR | OTHER | DISAB | TOTAL | NONMINORITY % PARTICIPATION EMR | TMR | OTHER | DISAB | TOTAL | NUM DIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NATION | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 1.4 | 0.2 | 1.1 | 1.1 | 3.7 | 3.4 | 0.4 | 1.7 | 1.6 | 7.1 | 1.0 | 0.2 | 1.1 | 1.1 | 3.5 | 161 |
| 11-20% MINORITY | 1.4 | 0.2 | 1.1 | 1.2 | 4.0 | 3.5 | 0.3 | 1.9 | 1.5 | 7.1 | 1.0 | 0.2 | 1.0 | 1.2 | 3.4 | 383 |
| 21-30% MINORITY | 1.6 | 0.2 | 1.1 | 1.3 | 4.1 | 3.2 | 0.3 | 1.7 | 1.5 | 6.7 | 1.0 | 0.2 | 0.8 | 1.2 | 3.2 | 289 |
| 31-50% MINORITY | 1.8 | 0.2 | 1.2 | 1.0 | 4.3 | 3.0 | 0.3 | 1.8 | 1.1 | 6.2 | 1.0 | 0.2 | 0.8 | 1.0 | 3.0 | 362 |
| 51-80% MINORITY | 1.6 | 0.3 | 1.1 | 0.9 | 3.9 | 2.7 | 0.3 | 1.2 | 0.9 | 4.5 | 0.9 | 0.2 | 0.7 | 1.0 | 2.8 | 249 |
| OVER 80% MINORITY | 2.6 | 0.3 | 1.2 | 0.8 | 4.8 | 2.1 | 0.3 | 1.7 | 0.8 | 4.9 | 1.2 | 0.3 | 1.4 | 1.0 | 4.0 | 78 |
| F-RATIO | 7.47 | 2.99 | 0.28 | 4.48 | 1.74 | 5.77 | 0.49 | 0.27 | 5.00 | 3.77 | 1.73 | 1.03 | 1.84 | 5.68 | 2.04 | |
| SIGNIFICANCE % | 99.99 | 67.55 | [illegible] | 99.94 | 87.80 | 99.99 | 21.36 | 12.72 | 99.97 | 99.75 | 87.65 | 59.95 | 89.83 | 99.99 | 93.03 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 1.0 | 0.1 | 0.7 | 0.8 | 2.7 | 3.0 | 0.1 | 1.2 | 1.0 | 5.3 | 1.1 | 0.1 | 0.6 | 0.8 | 2.5 | 16 |
| 11-20% MINORITY | 1.1 | 0.2 | 0.6 | 1.2 | 3.1 | 2.7 | 0.2 | 1.2 | 1.6 | 5.7 | 0.8 | 0.2 | 0.5 | 1.1 | 2.7 | 44 |
| 21-30% MINORITY | 1.2 | 0.3 | 1.1 | 1.1 | 3.7 | 2.7 | 0.3 | 2.0 | 1.4 | 5.9 | 0.9 | 0.3 | 0.8 | 1.0 | 2.9 | 28 |
| 31-50% MINORITY | 1.6 | 0.3 | 1.3 | 1.1 | 4.5 | 2.7 | 0.3 | 2.1 | 1.1 | 6.2 | 1.2 | 0.3 | 0.7 | 1.1 | 3.0 | 25 |
| 51-80% MINORITY | 1.2 | 0.3 | 1.2 | 0.6 | 3.2 | 1.5 | 0.3 | 1.5 | 0.4 | 3.8 | 0.8 | 0.3 | 0.6 | 0.6 | 2.3 | 21 |
| OVER 80% MINORITY | 1.9 | 0.3 | 0.4 | 0.6 | 3.2 | 1.9 | 0.3 | 0.5 | 0.6 | 3.3 | 1.3 | 0.4 | 0.3 | 0.5 | 2.5 | 5 |
| F-RATIO | 3.89 | 5.45 | 0.50 | 0.87 | 0.54 | 0.85 | 4.49 | 0.19 | 0.59 | 0.79 | 1.47 | 5.55 | 0.55 | 0.87 | 0.06 | |
| SIGNIFICANCE % | 99.71 | 99.97 | 22.10 | 49.80 | 25.16 | 49.23 | 99.40 | 3.65 | 57.31 | 44.15 | 79.55 | 99.98 | 25.61 | 49.51 | 0.41 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 1.3 | 0.2 | 0.4 | 0.7 | 2.7 | 3.7 | 0.3 | 0.5 | 0.7 | 5.0 | 1.2 | 0.2 | 0.4 | 0.8 | 2.5 | 34 |
| 11-20% MINORITY | 1.5 | 0.3 | 1.2 | 1.0 | 4.4 | 4.7 | 0.4 | 1.9 | 1.1 | 7.6 | 1.4 | 0.3 | 1.0 | 1.0 | 3.8 | 82 |
| 21-30% MINORITY | 2.2 | 0.2 | 0.7 | 0.8 | 3.9 | 3.7 | 0.2 | 1.1 | 0.5 | 5.5 | 1.6 | 0.2 | 0.6 | 1.0 | 3.4 | 32 |
| 31-50% MINORITY | 2.2 | 0.2 | 0.6 | 0.9 | 4.2 | 3.2 | 0.2 | 0.8 | 0.6 | 4.9 | 1.6 | 0.2 | 0.7 | 1.1 | 3.6 | 30 |
| 51-80% MINORITY | 2.2 | 0.2 | 0.7 | 1.7 | 4.7 | 2.7 | 0.2 | 0.6 | 1.6 | 5.0 | 1.3 | 0.1 | 0.4 | 2.1 | 4.0 | 15 |
| OVER 80% MINORITY | 1.5 | 0.2 | 0.1 | 0.2 | 2.0 | 1.5 | 0.2 | 0.1 | 0.2 | 2.0 | 1.1 | 0.4 | 0.1 | 0.4 | 2.0 | 8 |
| F-RATIO | 0.31 | 1.16 | 0.60 | 1.26 | 0.91 | 0.87 | 1.92 | 0.72 | 1.44 | 1.46 | 0.47 | 0.76 | 0.51 | 1.15 | 0.05 | |
| SIGNIFICANCE % | 9.55 | 67.25 | 32.60 | 72.02 | 52.56 | 49.56 | 90.77 | 39.50 | 79.09 | 80.46 | 19.41 | 55.33 | 33.34 | 55.40 | 94.32 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 1.3 | 0.2 | 1.1 | 1.2 | 4.1 | 4.1 | 0.5 | 2.1 | 1.8 | 8.4 | 1.1 | 0.2 | 1.0 | 1.2 | 3.3 | 94 |
| 11-20% MINORITY | 1.5 | 0.2 | 1.1 | 1.3 | 4.3 | 4.5 | 0.4 | 2.1 | 1.7 | 8.6 | 1.0 | 0.2 | 0.9 | 1.2 | 3.2 | 141 |
| 21-30% MINORITY | 1.8 | 0.2 | 1.7 | 1.5 | 4.8 | 4.1 | 0.4 | 2.2 | 1.9 | 8.6 | 1.0 | 0.2 | 0.9 | 1.4 | 3.5 | 151 |
| 31-50% MINORITY | 2.0 | 0.3 | 1.4 | 1.1 | 4.4 | 3.7 | 0.4 | 2.4 | 1.2 | 7.7 | 0.9 | 0.2 | 0.9 | 1.0 | 3.0 | 231 |
| 51-80% MINORITY | 1.4 | 0.3 | 1.4 | 0.9 | 4.5 | 2.5 | 0.3 | 1.6 | 0.8 | 5.3 | 0.9 | 0.2 | 1.6 | 0.9 | 3.0 | 162 |
| OVER 80% MINORITY | 2.3 | 0.3 | 2.2 | 1.0 | 5.7 | 2.4 | 0.3 | 2.4 | 1.0 | 5.6 | 1.2 | 0.3 | 1.9 | 1.3 | 4.6 | 49 |
| F-RATIO | 5.56 | 0.94 | 1.58 | 1.35 | 1.63 | 12.12 | 0.43 | 0.34 | 2.56 | 4.25 | 3.60 | 0.27 | 1.90 | 2.13 | 2.16 | |
| SIGNIFICANCE % | 99.90 | 54.30 | 63.66 | 75.69 | 85.26 | 99.99 | 17.26 | 10.96 | 97.42 | 99.89 | 99.70 | 7.10 | 90.95 | 94.03 | 94.45 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 0.8 | 0.2 | 1.3 | 1.4 | 3.7 | 1.8 | 0.6 | 1.6 | 1.9 | 5.8 | 0.7 | 0.2 | 1.3 | 1.4 | 3.6 | 37 |
| 11-20% MINORITY | 1.0 | 0.2 | 1.3 | 1.3 | 3.8 | 1.7 | 0.2 | 2.0 | 1.7 | 5.6 | 0.8 | 0.2 | 1.2 | 1.3 | 3.5 | 116 |
| 21-30% MINORITY | 0.9 | 0.2 | 0.9 | 0.9 | 2.9 | 1.4 | 0.2 | 0.9 | 0.9 | 3.5 | 0.7 | 0.2 | 0.8 | 0.9 | 2.7 | 78 |
| 31-50% MINORITY | 1.1 | 0.2 | 0.7 | 1.0 | 3.0 | 1.6 | 0.2 | 0.7 | 1.0 | 3.5 | 0.8 | 0.2 | 0.7 | 1.0 | 2.6 | 76 |
| 51-80% MINORITY | 1.1 | 0.2 | 0.6 | 0.8 | 2.7 | 1.4 | 0.3 | 0.6 | 0.8 | 3.0 | 0.6 | 0.2 | 0.6 | 0.8 | 2.2 | 50 |
| OVER 80% MINORITY | 1.0 | 0.2 | 2.0 | 0.4 | 3.6 | 1.0 | 0.2 | 2.1 | 0.4 | 3.8 | 0.8 | 0.2 | 0.7 | 0.2 | 2.0 | 16 |
| F-RATIO | 1.32 | 0.69 | 3.13 | 2.60 | 1.88 | 0.38 | 1.87 | 3.36 | 2.18 | 3.64 | 0.79 | 1.55 | 2.00 | 3.03 | 2.17 | |
| SIGNIFICANCE % | 74.49 | 36.69 | 99.10 | 97.51 | 90.46 | 13.67 | 90.28 | 99.41 | 94.46 | 99.65 | 44.01 | 82.61 | 92.28 | 98.92 | 94.34 | |

# PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT URBAN

| GEOGRAPHIC AREA<br>ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- EMR | TMR | OTHER | DISAB | TOTAL | --MINORITY % PARTICIPATION-- EMR | TMR | OTHER | DISAB | TOTAL | NONMINORITY % PARTICIPATION EMR | TMR | OTHER | DISAB | TOTAL | NUM DIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NATION | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 2.3 | 0.2 | 1.9 | 0.6 | 4.9 | 3.7 | 0.3 | 2.3 | 0.5 | 6.9 | 1.3 | 0.1 | 1.6 | 0.6 | 3.6 | 225 |
| 06-25% URBAN POPULATION | 2.3 | 0.2 | 2.0 | 0.7 | 5.1 | 4.8 | 0.3 | 2.9 | 0.9 | 8.8 | 1.1 | 0.1 | 1.6 | 0.5 | 3.4 | 104 |
| 26-50% URBAN POPULATION | 2.1 | 0.2 | 1.7 | 0.9 | 5.0 | 4.1 | 0.3 | 3.0 | 1.0 | 8.4 | 1.2 | 0.2 | 1.2 | 0.9 | 3.5 | 186 |
| 51-75% URBAN POPULATION | 1.7 | 0.2 | 1.4 | 1.2 | 4.5 | 3.9 | 0.3 | 2.8 | 1.5 | 8.5 | 1.0 | 0.2 | 0.9 | 1.1 | 3.2 | 219 |
| 76-95% URBAN POPULATION | 1.3 | 0.2 | 1.0 | 1.3 | 3.9 | 2.6 | 0.3 | 1.6 | 1.5 | 6.0 | 0.9 | 0.2 | 0.8 | 1.3 | 3.1 | 304 |
| OVER 95% URBAN POPULATION | 1.5 | 0.3 | 1.0 | 1.1 | 3.8 | 2.2 | 0.3 | 1.2 | 1.0 | 4.6 | 1.0 | 0.2 | 0.8 | 1.1 | 3.2 | 504 |
| F-RATIO | 8.40 | 2.23 | 3.32 | 10.78 | 2.36 | 11.50 | 3.27 | 3.64 | 6.81 | 7.01 | 1.46 | 5.61 | 1.92 | 13.54 | 0.80 | |
| SIGNIFICANCE % | 99.99 | 95.13 | 99.42 | 99.99 | 96.25 | 99.99 | 99.36 | 99.68 | 99.99 | 99.99 | 80.15 | 99.99 | 91.34 | 99.99 | 45.07 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 1.3 | 0.2 | 1.0 | 1.2 | 3.7 | 2.1 | 0.0 | 1.3 | 2.1 | 5.6 | 1.2 | 0.2 | 1.0 | 0.9 | 3.3 | 1 |
| 06-25% URBAN POPULATION | 1.4 | 0.0 | 1.8 | 1.9 | 5.1 | 1.2 | 0.0 | 2.8 | 2.5 | 6.5 | 1.4 | 0.0 | 1.6 | 1.9 | 4.9 | 1 |
| 26-50% URBAN POPULATION | 1.9 | 0.0 | 1.1 | 0.2 | 3.2 | 5.7 | 0.0 | 0.4 | 0.3 | 6.4 | 0.9 | 0.0 | 1.3 | 0.2 | 2.4 | 2 |
| 51-75% URBAN POPULATION | 1.1 | 0.1 | 1.1 | 0.7 | 2.9 | 2.0 | 0.1 | 1.8 | 1.0 | 4.9 | 0.9 | 0.1 | 0.9 | 0.6 | 2.5 | 9 |
| 76-95% URBAN POPULATION | 0.8 | 0.2 | 0.8 | 1.4 | 3.1 | 2.5 | 0.2 | 1.6 | 2.2 | 6.5 | 0.4 | 0.2 | 0.7 | 1.2 | 2.4 | 12 |
| OVER 95% URBAN POPULATION | 1.3 | 0.3 | 1.1 | 0.8 | 3.5 | 1.7 | 0.3 | 1.5 | 0.7 | 4.2 | 0.9 | 0.3 | 0.6 | 0.9 | 2.7 | 114 |
| F-RATIO | 1.94 | 2.32 | 0.16 | 0.44 | 0.18 | 0.78 | 2.06 | 0.20 | 0.81 | 0.42 | 2.55 | 1.98 | 0.92 | 0.36 | 0.40 | |
| SIGNIFICANCE % | [illegible] | 95.39 | 2.50 | 18.13 | 3.24 | 43.34 | 92.60 | 4.13 | 45.21 | 16.18 | 96.94 | 91.57 | 53.15 | 12.54 | 15.13 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 1.3 | 0.2 | 3.0 | 0.2 | 4.7 | 1.7 | 0.1 | 3.3 | 0.2 | 5.4 | 1.1 | 0.2 | 2.8 | 0.2 | 4.3 | 25 |
| 06-25% URBAN POPULATION | 1.1 | 0.0 | 0.4 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.4 | 0.0 | 1.5 | 1 |
| 26-50% URBAN POPULATION | 2.8 | 0.0 | 1.5 | 0.8 | 5.1 | 7.1 | 0.0 | 3.6 | 1.4 | 12.1 | 1.4 | 0.0 | 0.8 | 0.6 | 2.8 | 7 |
| 51-75% URBAN POPULATION | 1.5 | 0.2 | 0.4 | 1.6 | 3.6 | 3.6 | 0.2 | 0.7 | 2.1 | 6.5 | 1.2 | 0.2 | 0.3 | 1.5 | 3.2 | 13 |
| 76-95% URBAN POPULATION | 1.6 | 0.3 | 0.9 | 0.7 | 3.5 | 3.6 | 0.3 | 1.8 | 0.8 | 6.5 | 1.3 | 0.3 | 0.7 | 0.7 | 3.0 | 56 |
| OVER 95% URBAN POPULATION | 2.1 | 0.2 | 0.7 | 1.3 | 4.3 | 2.9 | 0.2 | 0.7 | 1.2 | 5.1 | 1.5 | 0.3 | 0.7 | 1.3 | 3.7 | 100 |
| F-RATIO | 0.64 | 0.25 | 2.63 | 1.94 | 0.08 | 0.27 | 0.34 | 2.27 | 2.61 | 0.46 | 0.34 | 0.24 | 2.21 | 1.82 | 0.10 | |
| SIGNIFICANCE % | 32.65 | 6.04 | 97.54 | 91.07 | 0.70 | 7.20 | 11.45 | 95.13 | 97.44 | 18.98 | 11.46 | 5.86 | 94.59 | 88.96 | 1.04 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 2.4 | 0.2 | 1.9 | 0.6 | 5.1 | 4.1 | 0.4 | 2.2 | 0.5 | 7.3 | 1.4 | 0.1 | 1.6 | 0.6 | 3.7 | 151 |
| 06-25% URBAN POPULATION | 2.4 | 0.2 | 2.1 | 0.7 | 5.3 | 5.1 | 0.3 | 3.1 | 0.9 | 9.4 | 1.1 | 0.1 | 1.6 | 0.5 | 3.4 | 95 |
| 26-50% URBAN POPULATION | 2.2 | 0.2 | 1.7 | 0.9 | 5.1 | 4.3 | 0.4 | 3.0 | 1.0 | 8.6 | 1.3 | 0.2 | 1.1 | 0.9 | 3.5 | 154 |
| 51-75% URBAN POPULATION | 1.8 | 0.2 | 1.5 | 1.3 | 4.8 | 4.3 | 0.3 | 3.1 | 1.7 | 9.5 | 1.0 | 0.2 | 0.9 | 1.2 | 3.3 | 132 |
| 76-95% URBAN POPULATION | 1.4 | 0.3 | 1.0 | 1.5 | 4.2 | 2.8 | 0.4 | 1.7 | 1.7 | 6.5 | 0.8 | 0.2 | 0.7 | 1.5 | 3.2 | 152 |
| OVER 95% URBAN POPULATION | 1.7 | 0.3 | 1.2 | 1.2 | 4.3 | 2.6 | 0.3 | 1.5 | 1.0 | 5.4 | 0.9 | 0.2 | 1.0 | 1.3 | 3.3 | 144 |
| F-RATIO | 4.72 | 1.74 | 0.24 | 12.28 | 0.09 | 5.92 | 1.33 | 0.26 | 8.97 | 0.57 | 2.30 | 6.85 | 0.16 | 14.34 | 1.03 | |
| SIGNIFICANCE % | 99.95 | 87.74 | 5.80 | 99.99 | 0.73 | 99.99 | 75.10 | 6.87 | 99.99 | 27.51 | 95.77 | 99.99 | 2.62 | 99.99 | 60.23 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 1.3 | 0.1 | 1.7 | 0.6 | 3.7 | 1.5 | 0.1 | 2.6 | 0.6 | 4.8 | 1.1 | 0.1 | 0.6 | 0.7 | 2.5 | 48 |
| 06-25% URBAN POPULATION | 0.9 | 0.1 | 0.6 | 0.4 | 2.0 | 1.0 | 0.2 | 0.6 | 0.3 | 2.1 | 0.7 | 0.0 | 0.6 | 0.4 | 1.8 | 7 |
| 26-50% URBAN POPULATION | 1.2 | 0.2 | 2.1 | 0.8 | 4.3 | 1.8 | 0.3 | 2.8 | 0.7 | 5.6 | 0.9 | 0.1 | 1.7 | 0.9 | 3.7 | 23 |
| 51-75% URBAN POPULATION | 1.2 | 0.1 | 1.3 | 0.9 | 3.6 | 2.0 | 0.2 | 1.6 | 0.8 | 4.6 | 1.0 | 0.1 | 1.2 | 0.9 | 3.2 | 65 |
| 76-95% URBAN POPULATION | 1.0 | 0.2 | 1.0 | 1.2 | 3.4 | 1.7 | 0.3 | 1.0 | 1.2 | 4.2 | 0.8 | 0.2 | 1.0 | 1.1 | 3.1 | 84 |
| OVER 95% URBAN POPULATION | 1.0 | 0.2 | 0.8 | 1.0 | 3.0 | 1.4 | 0.3 | 0.7 | 1.0 | 3.3 | 0.7 | 0.2 | 0.9 | 1.1 | 2.9 | 146 |
| F-RATIO | 2.45 | 2.97 | 2.94 | 1.06 | 1.69 | 2.61 | 2.56 | 5.16 | 0.67 | 3.36 | 1.59 | 1.61 | 2.14 | 1.64 | 1.34 | |
| SIGNIFICANCE % | 96.73 | 98.77 | 98.71 | 61.46 | 86.46 | 97.56 | 97.33 | 99.97 | 35.04 | 99.41 | 83.78 | 84.42 | 94.01 | 85.28 | 75.24 | |

| GEOGRAPHIC AREA<br>ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 0 - 1500 ENROLLMENT | 1.7 | 0.1 | 2.3 | 0.8 | 4.8 | 3.1 | 0.0 | 3.8 | 0.7 | 7.6 | 1.0 | 0.1 | 1.5 | 0.8 | 3.4 | 150 |
| 1501 - 3000 ENROLLMENT | 2.1 | 0.1 | 2.2 | 1.0 | 5.4 | 3.4 | 0.2 | 3.3 | 1.0 | 7.9 | 1.2 | 0.1 | 1.5 | 0.9 | 3.8 | 192 |
| 3001 - 10,000 ENROLLMENT | 1.8 | 0.2 | 1.5 | 1.1 | 4.7 | 3.2 | 0.3 | 2.1 | 1.1 | 6.7 | 1.1 | 0.2 | 1.3 | 1.1 | 3.6 | 728 |
| 10,001 - 25,000 ENROLLMENT | 1.6 | 0.2 | 1.0 | 1.1 | 3.9 | 2.9 | 0.3 | 1.6 | 1.2 | 6.0 | 1.0 | 0.2 | 0.8 | 1.0 | 3.1 | 310 |
| 25,001 - 100,000 ENROLLMENT | 1.5 | 0.3 | 1.1 | 1.2 | 4.0 | 2.6 | 0.3 | 1.7 | 1.1 | 5.7 | 0.9 | 0.2 | 0.8 | 1.2 | 3.2 | 142 |
| OVER 100,000 ENROLLMENT | 1.4 | 0.3 | 0.7 | 1.1 | 3.5 | 1.9 | 0.3 | 0.9 | 1.0 | 4.1 | 0.8 | 0.2 | 0.6 | 1.2 | 2.8 | 20 |
| F-RATIO | 3.72 | 7.63 | 4.41 | 1.42 | 3.44 | 1.54 | 8.24 | 4.37 | 0.63 | 2.93 | 1.09 | 6.97 | 3.91 | 2.11 | 1.06 | |
| SIGNIFICANCE % | 99.73 | 99.99 | 99.92 | 78.55 | 99.54 | 82.78 | 99.99 | 99.91 | 32.27 | 98.78 | 63.59 | 99.99 | 99.81 | 93.89 | 61.71 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 0 - 1500 ENROLLMENT | 0.7 | 0.0 | 0.0 | 0.6 | 1.4 | 1.9 | 0.0 | 0.0 | 0.6 | 2.5 | 0.6 | 0.0 | 0.0 | 0.6 | 1.3 | 2 |
| 1501 - 3000 ENROLLMENT | 1.1 | 0.1 | 0.7 | 0.6 | 2.5 | 1.8 | 0.1 | 0.9 | 0.5 | 3.2 | 1.0 | 0.1 | 0.6 | 0.6 | 2.3 | 4 |
| 3001 - 10,000 ENROLLMENT | 1.2 | 0.2 | 0.6 | 1.0 | 3.3 | 2.3 | 0.2 | 1.2 | 0.9 | 4.5 | 0.8 | 0.2 | 0.7 | 1.0 | 2.7 | 85 |
| 10,001 - 25,000 ENROLLMENT | 1.4 | 0.3 | 0.9 | 1.0 | 3.6 | 2.4 | 0.3 | 1.5 | 1.2 | 5.3 | 1.0 | 0.3 | 0.6 | 0.9 | 2.7 | 35 |
| 25,001 - 100,000 ENROLLMENT | 1.8 | 0.4 | 1.9 | 1.0 | 5.0 | 2.3 | 0.4 | 2.9 | 0.9 | 6.4 | 1.2 | 0.4 | 0.7 | 1.0 | 3.4 | 11 |
| OVER 100,000 ENROLLMENT | 1.1 | 0.3 | 1.0 | 0.6 | 3.0 | 1.4 | 0.3 | 1.2 | 0.5 | 3.4 | 0.7 | 0.3 | 0.6 | 0.6 | 2.2 | 2 |
| F-RATIO | 1.48 | 4.15 | 1.60 | 0.15 | 1.57 | 0.87 | 7.28 | 0.95 | 0.30 | 0.78 | 0.97 | 2.48 | 0.51 | 0.10 | 0.40 | |
| SIGNIFICANCE % | 80.19 | 99.81 | 83.54 | 2.14 | 82.78 | 49.21 | 99.99 | 54.94 | 9.03 | 43.01 | 55.77 | 96.57 | 22.82 | 1.05 | 15.43 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 0 - 1500 ENROLLMENT | 1.8 | 0.1 | 2.4 | 0.3 | 4.6 | 3.1 | 0.1 | 2.9 | 0.2 | 6.4 | 1.2 | 0.2 | 2.1 | 0.3 | 3.8 | 29 |
| 1501 - 3000 ENROLLMENT | 2.0 | 0.1 | 0.7 | 1.3 | 4.1 | 4.2 | 0.1 | 0.8 | 1.2 | 6.3 | 1.2 | 0.1 | 0.7 | 1.4 | 3.3 | 16 |
| 3001 - 10,000 ENROLLMENT | 2.1 | 0.2 | 1.4 | 1.3 | 5.0 | 3.5 | 0.2 | 2.0 | 1.1 | 6.7 | 1.6 | 0.2 | 1.2 | 1.3 | 4.3 | 83 |
| 10,001 - 25,000 ENROLLMENT | 1.7 | 0.3 | 0.6 | 0.8 | 3.3 | 3.2 | 0.2 | 0.9 | 0.6 | 5.0 | 1.3 | 0.3 | 0.5 | 0.8 | 2.9 | 48 |
| 25,001 - 100,000 ENROLLMENT | 1.9 | 0.3 | 0.8 | 1.0 | 4.1 | 3.1 | 0.3 | 1.0 | 0.9 | 5.3 | 1.4 | 0.3 | 0.7 | 1.0 | 3.5 | 21 |
| OVER 100,000 ENROLLMENT | 2.3 | 0.2 | 0.5 | 1.5 | 4.5 | 2.8 | 0.2 | 0.5 | 1.4 | 4.9 | 1.4 | 0.2 | 0.3 | 1.7 | 3.7 | 5 |
| F-RATIO | 0.24 | 0.41 | 2.43 | 1.95 | 0.63 | 0.12 | 0.33 | 1.72 | 2.73 | 0.63 | 0.22 | 0.41 | 2.13 | 1.68 | 0.46 | |
| SIGNIFICANCE % | 5.57 | 15.46 | 96.43 | 91.28 | 31.82 | 1.51 | 10.29 | 86.87 | 97.93 | 32.16 | 4.74 | 15.54 | 93.78 | 85.96 | 19.54 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 0 - 1500 ENROLLMENT | 2.0 | 0.0 | 3.1 | 0.6 | 5.7 | 3.7 | 0.0 | 5.3 | 0.6 | 9.6 | 0.9 | 0.1 | 1.9 | 0.5 | 3.4 | 69 |
| 1501 - 3000 ENROLLMENT | 2.2 | 0.1 | 2.5 | 1.0 | 5.9 | 3.7 | 0.2 | 3.7 | 1.0 | 8.7 | 1.1 | 0.1 | 1.6 | 1.0 | 3.8 | 121 |
| 3001 - 10,000 ENROLLMENT | 2.2 | 0.3 | 1.9 | 1.0 | 5.4 | 4.0 | 0.3 | 2.5 | 1.2 | 8.0 | 1.2 | 0.2 | 1.5 | 0.9 | 3.8 | 407 |
| 10,001 - 25,000 ENROLLMENT | 1.9 | 0.2 | 1.3 | 1.1 | 4.5 | 3.8 | 0.4 | 2.2 | 1.3 | 7.6 | 1.0 | 0.2 | 0.9 | 1.0 | 3.2 | 144 |
| 25,001 - 100,000 ENROLLMENT | 1.6 | 0.2 | 1.1 | 1.3 | 4.2 | 3.0 | 0.3 | 1.8 | 1.2 | 6.4 | 0.9 | 0.2 | 0.8 | 1.3 | 3.2 | 76 |
| OVER 100,000 ENROLLMENT | 1.3 | 0.3 | 0.9 | 1.3 | 3.8 | 2.2 | 0.3 | 1.1 | 1.1 | 4.8 | 0.7 | 0.2 | 0.7 | 1.4 | 3.0 | 11 |
| F-RATIO | 4.17 | 8.27 | 2.24 | 2.50 | 1.96 | 2.26 | 8.00 | 2.26 | 1.23 | 1.31 | 1.56 | 9.87 | 2.00 | 3.59 | 0.46 | |
| SIGNIFICANCE % | 99.87 | 99.99 | 95.18 | 97.09 | 91.89 | 95.37 | 99.99 | 95.38 | 70.74 | 74.47 | 83.18 | 99.99 | 92.44 | 99.64 | 19.06 | |
| WEST | | | | | | | | | | | | | | | | |
| 0 - 1500 ENROLLMENT | 1.3 | 0.0 | 1.1 | 1.4 | 3.8 | 2.1 | 0.0 | 1.7 | 1.2 | 5.1 | 0.9 | 0.0 | 0.8 | 1.4 | 3.2 | 50 |
| 1501 - 3000 ENROLLMENT | 1.8 | 0.2 | 2.1 | 0.8 | 4.9 | 2.6 | 0.2 | 2.8 | 0.8 | 6.5 | 1.3 | 0.1 | 1.7 | 0.8 | 3.9 | 51 |
| 3001 - 10,000 ENROLLMENT | 1.0 | 0.1 | 1.1 | 1.2 | 3.5 | 1.4 | 0.2 | 1.2 | 1.1 | 3.9 | 0.9 | 0.1 | 1.1 | 1.3 | 3.3 | 153 |
| 10,001 - 25,000 ENROLLMENT | 1.0 | 0.2 | 1.0 | 1.1 | 3.3 | 1.4 | 0.2 | 0.9 | 1.2 | 3.7 | 0.8 | 0.1 | 1.0 | 1.1 | 3.1 | 83 |
| 25,001 - 100,000 ENROLLMENT | 1.0 | 0.2 | 0.9 | 1.0 | 3.1 | 1.6 | 0.3 | 0.9 | 0.9 | 3.7 | 0.7 | 0.2 | 0.9 | 1.0 | 2.9 | 34 |
| OVER 100,000 ENROLLMENT | 0.8 | 0.3 | 0.5 | 0.7 | 2.3 | 1.2 | 0.3 | 0.4 | 0.7 | 2.7 | 0.4 | 0.2 | 0.6 | 0.7 | 1.9 | 2 |
| F-RATIO | 4.01 | 3.10 | 2.14 | 0.64 | 2.20 | 2.28 | 2.41 | 2.62 | 0.74 | 2.59 | 3.74 | 2.59 | 1.57 | 0.70 | 1.16 | |
| SIGNIFICANCE % | 99.82 | 99.05 | 94.07 | 33.10 | 94.74 | 95.46 | 96.43 | 97.60 | 40.20 | 97.48 | 99.71 | 97.49 | 83.45 | 37.69 | 67.36 | |

# IV. ADDITIONAL FINDINGS

## A. Introduction and Overview

In this section, Section IV, Additional Findings, we present information which complements the results discussed in Section III, Major Findings. In some cases, the areas analyzed here present results which support the conclusions of Section III; in other cases, section information covers additional topics which are important to a study of special education but are not related to the major findings.

The analysis of this section centers around the following subjects:

- File Coverage and National Projections
- Special School Enrollments
- Local Service Distribution
- Analysis of Additional Socio-economic Variables
- Additional Paths of Analysis

Section IV.B discusses data file coverage and national total estimation in order to demonstrate the adequacy of project data sources for supporting analysis objectives.

The study of Special School Enrollments in Section IV.C shows that one-half of the nation's TMR pupils attend special schools. Also, racial imbalances in special schools are similar in extent to those found for all student participation in special education. These imbalances in Other and Special Disability programs are substantially more pronounced in special schools than in overall special education.

An examination of the role of special schools in special education raises an issue which is analyzed in the Local Service Distribution Analysis: i.e., is an analysis of special education participation on the district level undermined by the existence of arrangements for pooling special education children from several districts into one facility? (i.e., special schools). For example, if four districts sent all children needing special education to one school, then the district containing that school would have deceptively high participation rates and the other three schools would have artificially low rates. Under these circumstances, an analysis relating participation rates to districts' socio-economic conditions would be severely jeopardized. Section IV.D, Local Service Distribution Analysis, shows that while these cooperative arrangements do exist, their frequency is low enough that the results of the analysis are not impaired.

In Section IV.E, Analysis of Additional Socio-economic Variables, the method of analysis follows that of Section III. Six parameters are analyzed:

- percent state revenues
- percent Title I revenues
- per pupil expenditures as a percent of per capita income
- percent poverty for districts with less than $3,000 per capita income
- percent poverty for districts with greater than $3,000 per capita income
- education level.

The motivation behind selecting these parameters and their impact upon regional and national participation in all aspects of special education are discussed and graphed in Section IV.E, Analysis of Additional Socio-economic Variables.

Section IV.F presents Additional Paths of Analysis - those techniques employed during the course of the study which either lead to or supplement the graphical displays of data found in Section III. Two principal approaches involve comparative and statistical reporting of special education and socio-economic district information. Other techniques include estimating complete regional and national totals from the totals for the districts surveyed and producing various special education descriptive reports.

## B. File Coverage and National Projections

After creation of the composite analysis data file one concern surfaced: does information in the analysis file cover a significant and representative portion of the school-age population, or has considerable information been lost during analysis file creation? The following table summarizes the district coverage of the OCR, SDELM, and OCR/SDELM files:

| | OCR | SDELM |
|---|---|---|
| Total Districts Covered | 2,908 | 4,714 |
| Districts on Both (OCR/SDELM) | 1,542 | 1,542 |
| Districts on Only One | 1,366 | 3,172 |

During the merging process (to create the composite OCR/SDELM file), about one-half of the OCR districts and one-third of the SDELM districts contribute to the composite file. From this district data, however, it is difficult to estimate the extent of the coverage provided by the OCR and OCR/SDELM file. The table presented below concentrates on enrollment coverage, as well as district and school coverage. Figures are given for the nation and the four regions:

| | -OCR- | | | | -OCR/SDELM- | | | |
|---|---|---|---|---|---|---|---|---|
| Region | Districts | Schools | Enrollment | % of Total | Districts | Schools | Enrollment | % of Total |
| Northeast | 237 | 4,577 | 3,233,807 | 34.5 | 139 | 4,120 | 2,182,499 | 31.8 |
| Midwest | 295 | 6,244 | 3,799,136 | 29.8 | 202 | 5,571 | 3,474,715 | 27.2 |
| South | 1,772 | 20,093 | 11,932,880 | 82.4 | 828 | 16,147 | 10,149,335 | 70.0 |
| West | 604 | 8,063 | 5,018,898 | 62.7 | 373 | 7,042 | 4,531,143 | 56.6 |
| Nation | 2,908 | 38,977 | 23,976,384 | 53.8 | 1,542 | 32,880 | 21,135.152 | 47.3 |

In this table, the extensive coverage of the OCR 1973 Survey and of the OCR/SDELM file becomes apparent. In the nation, the OCR Survey holds information for 53.8% of all students in the nation. These students represent the enrollments of 38,977 schools in 2,908 districts. Just as striking is the coverage of the OCR/SDELM file. Although almost 1/2 of the OCR file's districts are excluded from the OCR/SDELM file, these districts contain just 6% of the nation's pupils. The OCR/SDELM file, essential to the thrust of project analysis, contains socio-economic and special education information for almost half of all students in the country.

The relevance of the coverage of the OCR/SDELM file to this project is as follows: often, conclusions about the nation's behavior may be reached with data involving just a small fraction of the nation's population (i.e., television polls, political polls, etc.); this study's conclusions are reached only after carefully analyzing data which covers 47.3% of the nation's school-age population. A study utilizing information which is this comprehensive in extent is on a firm foundation for drawing conclusions about special education participation.

States comprising the four geographic regions are listed as follows:

NORTHEAST
Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

MIDWEST
Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

SOUTH
Alabama
Arkansas
Delaware
District of Columbia
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

WEST
Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

The extent of the coverage of regions shows some variation. OCR information concerning over 82% of the South's total enrollment has been collected. Coverage in other regions, while not as spectacular as coverage in the South, is solid. In the Northeast, 34.5% of the students are covered, in the Midwest 29.8%, and in the West 62.7%. Furthermore, very little coverage is sacrificed in the OCR/SDELM file. Again, the essential point is that conclusions reached about special education participation in the regions are not based on information from a handful of districts. Participation rates are known for 27.2% of the midwest's enrollment, 31.8% of the Northeast's enrollment, 56.6% of the West's enrollment, and 70% of the South's enrollment. Important findings of this project are significant, since they pertain to sizable enrollment percentages. However, the data for districts in the OCR and OCR/SDELM files can also be used to project regional and national totals. These estimated regional and national figures (which include special education participation rates) suggest that conclusions, based upon the districts surveyed, hold for all districts.

The technique used to take data from the districts surveyed and project regional and national totals is explained in Section VII, Technical Approach. Basically, the probability that a district is placed into the OCR or OCR/SDELM survey is estimated. From this probability, a weight can be assigned to the district and used to compile regional totals. For example, if there is just one chance in three that a district would be surveyed in 1973 by OCR, its weight assigned is three. When totals are estimated, this district is counted three times - once for itself and twice for districts like it which were passed over when the survey was taken.

The 1973 OCR Survey presents additional problems due to its selection process. Although all "even" year OCR surveys (1968, 70, etc.) took statistical samples of districts, surveys in "odd" years (1971, 73, etc.) did not. For example, all districts with large enrollments, large minority enrollments, and involvement in litigation were automatically included in the 1973 survey. The 1972 survey, which is a statistical random sample, can be used to estimate weights for the districts in the 1973 OCR file. The method used in accomplishing this end is described in the Technical Approach (Section VII). The following table indicates the consistency of the data regardless of the file used (OCR unweighted, OCR/SDELM unweighted, OCR weighted, or OCR/SDELM weighted):

|  | Special Education Participation |  |  |  |  |
|---|---|---|---|---|---|
|  | EMR | TMR | Other | Sp. Dis. | Total |
| OCR | 1.63% | .23% | 1.20% | 1.09% | 4.16% |
| OCR/SDELM | 1.59% | .24% | 1.12% | 1.09% | 4.04% |
| OCR Projections | 1.51% | .20% | 1.19% | 1.06% | 3.96% |
| OCR/SDELM Projections | 1.45% | .20% | 1.35% | 1.00% | 4.00% |

Participation rates in all aspects of special education do not vary much from data source to data source. In particular, national participation in special education occurs at about a 4% rate for all four files. The uniform nature of these statistics indicate that rates which are observed in districts on the OCR/SDELM file will be very similar to rates for all districts in the nation. Conclusions based upon an analysis of the OCR/SDELM data can be safely generalized to the entire nation.

## C. Analysis of Special School Enrollments

In a study of special education participation throughout the country, it is natural to examine participation in special schools - local schools whose sole purpose is to serve children requiring special education. Enrollments in these special schools constitute a little over 10% of the nation's overall special education enrollment. In this section, we present the results of an analysis of special school involvement in the various aspects of special education. Contrasts are made between special school participation and overall participation in special education.

Several interesting statistics regarding special schools participation in special education are presented in Figure IV.C.1. An analysis of this figure leads to the following summarized results:

- About half of the nation's children requiring TMR services attend special schools. Consequently, TMR pupils constitute a much higher proportion of special schools enrollment than of overall special education enrollment.
- Racial imbalances in special education participation are similar in extent for special schools and overall special education. In particular, minority pupils are much more likely to participate in EMR and Other programs than non-minority pupils.
- Differences do exist in minority/non-minority participation for special schools and overall special education. In particular, racial imbalances in Other and Special Disability (SD) programs are more pronounced in special schools than in the general special education program.

These general results are supported by the statistics in Figure IV.C.1. The first two columns of this table give the enrollments in an aspect of special education as a percentage of total special education. For example, 39.2% of all students under special education are classified as EMR. The third column gives the number of special schools students in a particular program as a percentage of all students in that program. For instance, 7.3% of all EMR students attend special schools.

Figure IV.C.1

Analysis of Special School Enrollment

| | % of Total Special Ed | | | % Minority * | | Minority/Non-Minority Participation Ratio | |
|---|---|---|---|---|---|---|---|
| | All Schools | Special Schools | % In Spec Schools | All Schools | Special Schools | All Schools | Special Schools |
| EMR | 39.2% | 28.9% | 7.3% | 62.1% | 62.0% | 2.65 | 2.65 |
| TMR | 5.6% | 28.1% | 50.2% | 46.8% | 43.6% | 1.40 | 1.26 |
| Other | 28.9% | 19.6% | 6.7% | 51.4% | 64.0% | 1.72 | 2.88 |
| Spec. | 26.3% | 25.4% | 9.6% | 37.7% | 46.4% | .98 | 1.41 |
| Total | 100.0% | 100.0% | 10.1% | 51.8% | 53.5% | 1.74 | 1.86 |

* Minorities constitute 38.1% of total file population.
(Data File is entire OCR Survey File)

The last four columns of this table focus on racial imbalances in special education. Columns four and five deal with the ethnic composition of special education programs. For example, 62.1% of EMR students in all schools surveyed are of minority extraction - a case where minorities are in the majority. These percentage figures may be related to the percentage of minority students included in the survey (38.1%). Thus, if a program consists of over 38.1% minority enrollment, it contains more minority pupils than expected if race does not affect special education participation.

Columns six and seven give the ratio of minority to non-minority participation in special education for all schools and for special schools. A ratio of 1 indicates minorities and non-minorities are similarly served (on the national level). A ratio greater than 1 means minority pupils are more likely to be placed in a special education program than non-minority pupils. The higher the ratio, the greater the imbalance.

Using the data of Figure IV.C.1 and the techniques described above to interpret the data, we can support the general conclusions presented earlier. First of all, TMR plays a much bigger role in special schools than in overall special education programs.

Nationally, 28.1% (column 2) of the pupils enrolled in special schools are classified as TMR pupils. Also, over 50% (column 3) of the students in the nation requiring TMR training are enrolled in special schools.

Racial imbalances exist in special schools as well as in overall special education. The data supporting this conclusion is taken from schools included in the 1973 OCR Survey, schools in which 38.1% of the enrollment is minority. However, 51.8% (column 4) of the students in all schools and 53.5% (column 5) of the students in special schools are minority pupils. Racial imbalances are especially pronounced in EMR and Other programs where, in special schools, over 60% of the students involved in these programs are of a minority ethnicity.

Nationally, minority children are much more likely to be placed in special schools than non-minority children are. Columns 6 and 7 (ratios of the minority participation rate divided by the non-minority participation rate) show that for all special schools programs, the ratio is greater than 1, indicating minorities are more likely to be sent to special schools under all classifications of special education. Racial differences are substantial for the Other and EMR programs; minority pupils are nearly three times as likely as non-minority pupils to be placed in these programs in special schools.

Finally, data in this figure suggests racial inequities in overall special education are echoed by the inequities in special schools. However, participation in two aspects of special education - Special Disabilities and Other programs - warrants further analysis. Nationally, participation in Special Disability programs shows no racial complications for all schools (a ratio of .98 indicates minorities and non-minorities participate at the same rate). However, participation in SD programs in special schools demonstrates that racial distinctions are made here. For special schools, minority children are 1.4 times as likely to be placed in SD programs as non-minority are.

A discrepancy between minority and non-minority participation in Other programs exists in both overall special education and in special schools. The discrepancy is severe in each case but is especially pronounced for special schools participation. For general special education, minorities are 1.72 times as likely to be placed in Other programs; for special schools they participate at a rate which is 2.88 times that of non-minority pupils.

## D. Local Service Distribution Analysis

Our analysis of the impact of socio-economic factors upon special education participation implicitly assumes that, for the most part, children attending special education programs reside in the school district providing the programs. For example, a hypothetical observation that special education participation increases with increasing district per capita income could be explained by certain district characteristics (i.e., higher income districts can afford more extensive special education facilities, such districts tend to employ a greater number of school psychologists who are capable of identifying special education pupil requirements, etc.). However, this hypothetical observed trend could also be explained by the existence of cooperative special education arrangements under which special education service center districts provide centralized programs for children in all neighboring districts. In such cases (independent of any socio-economic influences), special education service center districts would have relatively high special education participation while neighboring districts would have low participation (since they would send children to the special education service center district).

Local service distribution analysis was undertaken to identify and, if necessary, take into account the following two potential effects upon analysis of cooperative, centralized special education programs:

- Clustering of special education services could obscure trends attributable to socio-economic influences. For example, an actual high special education rate in poor communities could be obscured if those children generally attended centralized programs in wealthy areas.
- On the other hand, observed trends could be the results, not of socio-economic factors, but of cooperative arrangements for providing centralized special education services.

Initial motivation for analyzing the prevalence of centralized services resulted from our knowledge of the Special School District of St. Louis which provides all special education programs for St. Louis County. In addition, the study objectives have, by no means, exhausted relevant subject areas including the existence of Boards of Cooperative Educational Services (BOCES) in New York and Intermediate Units (IU's) in Pennsylvania for providing services.

Analysis of the distribution of local special education services entailed the following three procedures:

- Identify potential instances of cooperative arrangements for providing special education services
- Telephone some of identified potential districts to determine if cooperative sharing of services exist and if it did exist, ascertain the types of services and names of the districts sharing the services
- If centralized sharing of services is significant, treat participant districts in shared service arrangements as single composite districts throughout all socio-economic analyses.

Observations from the analysis of the distribution of local special education services, and in particular of the fifty interviews of potential cooperative service districts, are discussed below.

Impact of cooperative service agreements upon the socio-economic analysis of special education participation. The primary objective of the local service distribution study was to determine if the existence of cooperative district arrangements for providing centralized special education services obscures trends of socio-economic influence on special education participation. District interviews indicate that such cooperative efforts do not have significant effect on special education participation analysis, for the following reasons:

- Much special education is provided almost entirely by individual school districts for pupils residing in the school district.
- The great majority of sharing arrangements involve small numbers of severely handicapped or disturbed children requiring very specialized care, facilities, equipment, etc. If need becomes significant, districts tend to develop their own facilities.
- In many shared service agreements, pupils attend central facilities under a tuition system in which the sending school district pays tuition and retains, in its enrollment, the students attending shared programs.

EMR programs are most likely to be handled completely by individual districts. The great majority of districts interviewed stated that they handled all their own EMR pupils, and did not accept pupils from other districts (except for individual cases where there was no other way to provide required service). Within certain individual districts, however, special education schools did handle EMR service for the entire district.

TMR pupils are more likely than EMR pupils to be sent out of the district for services. TMR programs involve much fewer numbers of pupils than EMR programs. In some districts, the number of TMR pupils is too small to establish a TMR program and students requiring services must, therefore, be sent out of the district. Also, TMR pupils sometimes need more specialized services than EMR pupils. Often, districts send out TMR pupils under a tuition agreement in which the district pays tuition to TMR student services, and in return such children are kept on the sending district's enrollment counts. As TMR service requirements increase, districts develop their own TMR facilities, often as a requirement of law.

Severely handicapped and severely emotionally disturbed children are the most likely category of special education to be sent out of the district for services. Many school districts simply do not have specialized facilities for serving severely handicapped and severely emotionally disturbed pupils, and a number of methods are used for providing required programs:

- Pupils are sent to neighboring districts that have made cooperative arrangements with local hospitals or have their own facilities. This is sometimes done under a tuition agreement in which the sending district pays tuition, and maintains the pupils on its own enrollment rolls.
- Pupils are sent to state supported or private facilities.

Cooperative arrangements for providing special education services do exist. The local service distribution study did not rule out the existence of cooperative service agreements. Rather, for reasons previously discussed, it indicated that the existence of such agreements will not obscure socio-economic analysis of special education participation trends. In fact, a variety of cooperative agreement types have been discussed previously in the section.

Significance of category of Other special education in districts with very high participation rates. In the course of telephone interviews, certain districts were surprised at their high special education participation rates reported to the OCR survey. Further investigation revealed that most often it was large numbers of pupils specified as requiring Other special education services that caused overall participation to be high. The OCR category of Other special education includes pupils designated as "slow learners." Certain districts interpreted this to include pupils receiving remedial reading and "slow learners" assistance under such programs as ESEA Title I and bilingual programs.

Because of potential alternative district interpretations of the Other special education category, its impact on total special education participation was examined throughout all socio-economic analysis of special education participation rates.

The method of accomplishing local service distribution analysis is discussed in more detail in the Technical Approach to Analysis (Section VII.E).

## E. Analysis of Additional Socio-Economic Variables

The Major Findings Section concentrates on the impact upon special education of the following five socio-economic variables:

- Percent Poverty
- Per Capita Income
- Percent Urban Population
- Percent Minority Enrollment
- Total Enrollment

This discussion analyzes the effect on special education of six additional socio-economic measures that were not included in the Major Findings section:

- Percent State Revenues
- Percent Title I Revenues
- Per Pupil Expenditures as a Percent of Per Capita Income (Burden)
- Percent Poverty for Districts with Less than $3,000 Per Capita Income
- Percent Poverty for Districts with Greater than $3,000 Per Capita Income
- Education Level

These variables were not included in the major findings for a variety of reasons. The Percent State Revenues and Percent Title I Revenues were not included because of sizeable changes in these areas between 1970 when the socio-economic data was collected and 1973 when the participation data was collected. The third variable, Burden, showed no meaningful trends and the fourth and fifth variables, examining the ends of the economic spectrum, showed too few points to draw conclusions. The final variable, Education, is only descriptive and provides no basis for trend analysis.

Graphs of national trends for the first five of these variables are presented with each discussion. Regional level graphs are located in Appendix A.

# Percent Special Education
# Participation by Percent State Revenue:
# Summary Information

## Parameter:

Percent State Revenue is defined as the amount of money a state government contributes to a district's revenue as a percent of total district revenue. Percent State Revenue is a rough measure of the state's involvement in a district's educational system. In 1970 the national average was 39% State Revenues.

## General Observations:

National Trends: Total participation increases as State revenues to the school district increase. Again, it is minority, not non-minority, behavior which is affected by the socio-economic parameter analyzed. On the national level, there is little change in non-minority participation in any aspect of special education as percent state revenue varies.

However, for minority pupils, several relations emerge which carry over to trends for the total enrollment of the nation. First of all, there is a general rise in minority participation in overall special education as percent state revenue increases. This upward trend is also found in minority participation in EMR and Other programs; in contrast, minority involvement in Special Disabilities falls off as state governments contribute more to district revenue. TMR participation for minority pupils does not appear to depend upon percent state revenue. The behavior of the nation's total enrollment participation follows that of its minority participation, with all trends a little less pronounced.

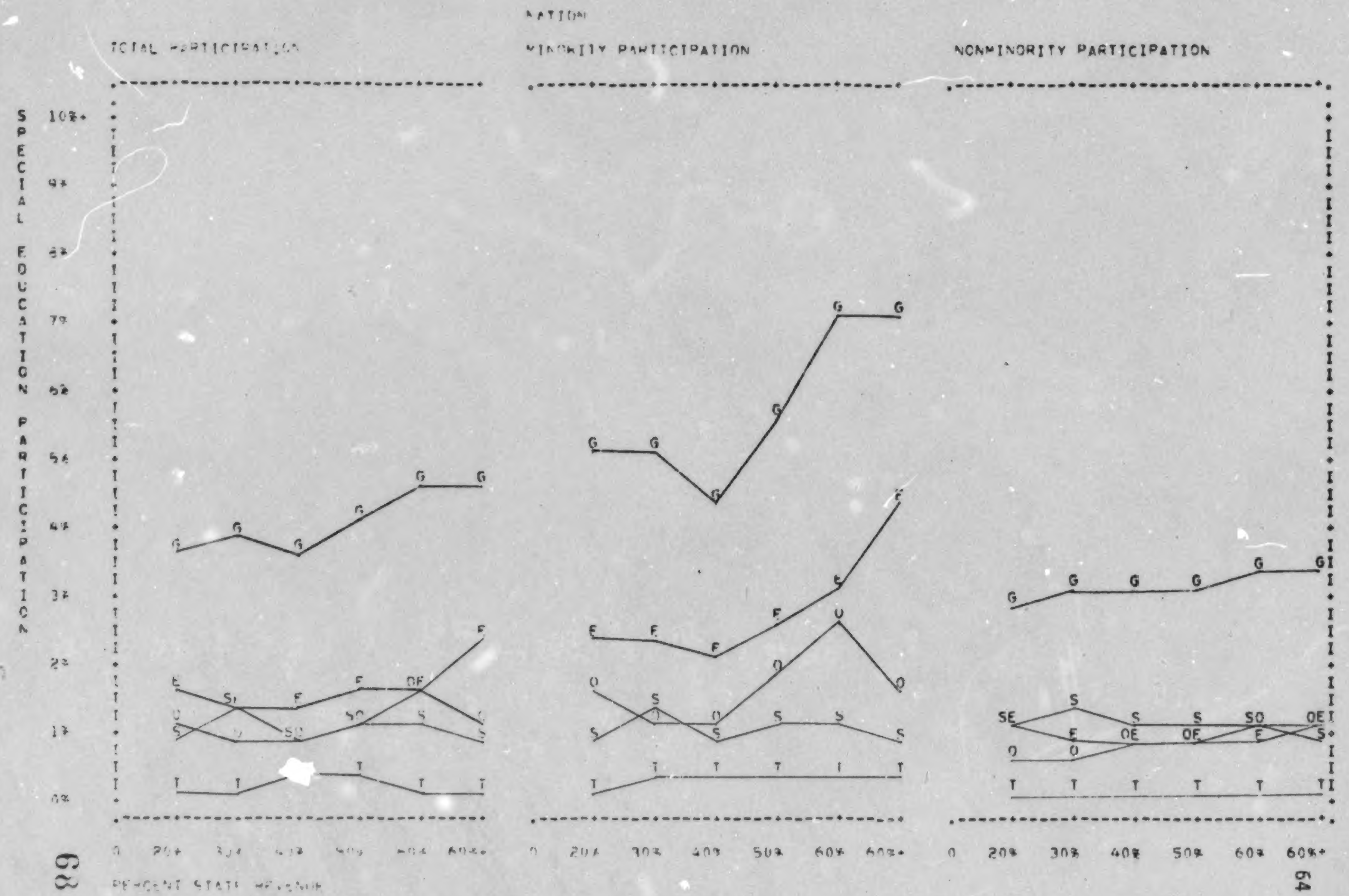
Northeast Regional Trends: In the Northeast, minority, non-minority and total participation in EMR has a tendency to increase as percent state revenue increases. No other significant trends, with regard to state revenue, arise in this region.

Midwest Regional Trends: Apparently, participation in no aspect of special education is affected by percent state revenue in the Midwest. All curves are either flat or fluctuating and the F test says any possible trends have a good chance of being random fluctuations.

South Regional Trends: In the South, the F test supports observed trends of participation in EMR and Special Disabilities programs as Percent State Revenue varies. For minority, non-minority, and total enrollments, participation in EMR increases and in Special Disabilities declines as state government contributes a bigger percentage of district revenue.

West Regional Trends: The impact of Percent State Revenue upon participation of pupils in all aspects of special education is negligible.

NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

# PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT STATE REVENUE

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM DIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | |
| NATION | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 1.6 | 0.1 | 1.0 | 1.0 | 3.7 | 2.5 | 0.1 | 1.5 | 0.9 | 5.0 | 1.0 | 0.1 | 0.7 | 1.0 | 2.9 | 159 |
| 21-30% STATE REVENUE | 1.5 | 0.2 | 0.9 | 1.3 | 4.0 | 2.4 | 0.3 | 1.1 | 1.4 | 5.2 | 1.0 | 0.2 | 0.7 | 1.3 | 3.2 | 225 |
| 31-40% STATE REVENUE | 1.4 | 0.3 | 1.0 | 1.0 | 3.7 | 2.1 | 0.3 | 1.2 | 0.9 | 4.5 | 0.9 | 0.2 | 0.9 | 1.1 | 3.1 | 294 |
| 41-50% STATE REVENUE | 1.6 | 0.3 | 1.2 | 1.1 | 4.1 | 2.6 | 0.3 | 1.8 | 1.0 | 5.7 | 1.0 | 0.2 | 0.9 | 1.1 | 3.2 | 353 |
| 51-60% STATE REVENUE | 1.7 | 0.2 | 1.7 | 1.1 | 4.7 | 3.1 | 0.4 | 2.6 | 1.1 | 7.1 | 1.0 | 0.2 | 1.2 | 1.1 | 3.5 | 309 |
| OVER 60% STATE REVENUE | 2.3 | 0.2 | 1.2 | 0.8 | 4.6 | 4.4 | 0.3 | 1.5 | 0.8 | 7.1 | 1.2 | 0.2 | 1.1 | 0.8 | 3.3 | 202 |
| F-RATIO | 13.54 | 0.82 | 2.50 | 3.51 | 3.18 | 13.39 | 2.47 | 1.47 | 3.63 | 3.20 | 1.72 | 0.51 | 1.77 | 3.76 | 0.90 | |
| SIGNIFICANCE % | 99.99 | 46.16 | 97.16 | 99.60 | 99.25 | 99.99 | 96.96 | 80.60 | 99.67 | 99.27 | 87.39 | 22.90 | 88.40 | 99.74 | 52.16 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 1.2 | 0.3 | 2.3 | 1.3 | 5.2 | 2.0 | 0.3 | 4.0 | 1.0 | 7.3 | 0.6 | 0.3 | 1.1 | 1.6 | 3.6 | 47 |
| 21-30% STATE REVENUE | 1.5 | 0.3 | 0.8 | 1.0 | 3.6 | 2.2 | 0.3 | 1.2 | 1.1 | 4.7 | 1.0 | 0.3 | 0.5 | 1.0 | 2.8 | 42 |
| 31-40% STATE REVENUE | 0.9 | 0.2 | 1.0 | 0.7 | 2.5 | 1.1 | 0.2 | 1.3 | 0.6 | 3.2 | 0.7 | 0.2 | 0.6 | 0.7 | 2.2 | 19 |
| 41-50% STATE REVENUE | 2.0 | 0.4 | 0.7 | 0.4 | 3.5 | 2.7 | 0.4 | 0.9 | 0.4 | 4.5 | 1.2 | 0.4 | 0.5 | 0.4 | 2.5 | 17 |
| 51-60% STATE REVENUE | 2.1 | 0.3 | 1.1 | 0.7 | 4.2 | 3.7 | 0.4 | 1.9 | 0.5 | 6.4 | 1.5 | 0.2 | 0.7 | 0.8 | 3.2 | 9 |
| OVER 60% STATE REVENUE | 0.8 | 0.2 | 1.0 | 0.5 | 2.4 | 1.9 | 0.2 | 1.2 | 0.5 | 3.9 | 0.6 | 0.2 | 0.9 | 0.5 | 2.1 | 5 |
| F-RATIO | 3.86 | 2.74 | 1.35 | 0.89 | 1.11 | 6.07 | 1.00 | 1.80 | 0.82 | 1.32 | 4.05 | 2.92 | 1.37 | 0.84 | 0.71 | |
| SIGNIFICANCE % | 99.70 | 97.84 | 75.40 | 50.78 | 64.26 | 99.99 | 58.06 | 88.44 | 46.06 | 74.01 | 99.78 | 98.45 | 76.24 | 47.26 | 37.97 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 2.1 | 0.1 | 0.6 | 0.7 | 3.5 | 3.2 | 0.0 | 0.7 | 0.6 | 4.5 | 1.5 | 0.1 | 0.6 | 0.8 | 2.9 | 55 |
| 21-30% STATE REVENUE | 2.2 | 0.3 | 0.7 | 1.6 | 4.8 | 3.1 | 0.3 | 0.9 | 1.7 | 6.0 | 1.5 | 0.3 | 0.6 | 1.4 | 3.9 | 51 |
| 31-40% STATE REVENUE | 1.8 | 0.3 | 0.9 | 0.8 | 3.8 | 2.7 | 0.2 | 0.9 | 0.6 | 4.4 | 1.3 | 0.3 | 0.9 | 1.0 | 3.5 | 60 |
| 41-50% STATE REVENUE | 1.7 | 0.2 | 0.7 | 1.1 | 3.8 | 3.5 | 0.2 | 1.3 | 1.0 | 6.1 | 1.2 | 0.2 | 0.6 | 1.2 | 3.2 | 26 |
| 51-60% STATE REVENUE | 1.1 | 0.2 | 0.8 | 0.6 | 2.7 | 1.4 | 0.3 | 0.6 | 0.2 | 2.5 | 0.9 | 0.2 | 0.9 | 0.9 | 2.9 | 8 |
| OVER 60% STATE REVENUE | 2.5 | 0.0 | 0.5 | 0.0 | 3.0 | 2.9 | 0.0 | 0.6 | 0.0 | 3.5 | 0.1 | 0.0 | 0.3 | 0.0 | 0.4 | 2 |
| F-RATIO | 0.61 | 0.47 | 0.79 | 1.13 | 0.61 | 0.65 | 0.68 | 0.37 | 1.83 | 0.76 | 0.96 | 0.40 | 1.21 | 0.87 | 0.88 | |
| SIGNIFICANCE % | 30.39 | 20.10 | 43.82 | 65.70 | 30.83 | 33.35 | 35.79 | 13.01 | 89.18 | 41.72 | 55.79 | 15.13 | 69.35 | 49.96 | 50.59 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 1.3 | 0.3 | 0.4 | 1.3 | 3.4 | 2.5 | 0.4 | 0.5 | 1.5 | 4.9 | 0.8 | 0.2 | 0.4 | 1.3 | 2.7 | 20 |
| 21-30% STATE REVENUE | 1.3 | 0.2 | 1.2 | 1.5 | 4.2 | 2.6 | 0.3 | 2.0 | 1.7 | 6.6 | 0.7 | 0.2 | 0.9 | 1.5 | 3.3 | 66 |
| 31-40% STATE REVENUE | 1.7 | 0.3 | 1.0 | 1.2 | 4.2 | 3.0 | 0.4 | 1.3 | 1.2 | 5.8 | 0.9 | 0.2 | 0.9 | 1.3 | 3.2 | 129 |
| 41-50% STATE REVENUE | 1.7 | 0.2 | 1.4 | 1.1 | 4.4 | 2.8 | 0.3 | 2.1 | 1.1 | 6.4 | 1.0 | 0.2 | 0.9 | 1.1 | 3.2 | 227 |
| 51-60% STATE REVENUE | 1.9 | 0.2 | 1.9 | 1.1 | 5.2 | 3.6 | 0.4 | 3.2 | 1.2 | 8.4 | 1.0 | 0.2 | 1.3 | 1.1 | 3.6 | 225 |
| OVER 60% STATE REVENUE | 2.5 | 0.2 | 1.3 | 0.8 | 4.8 | 5.0 | 0.4 | 1.6 | 0.8 | 7.8 | 1.3 | 0.2 | 1.1 | 0.8 | 3.3 | 159 |
| F-RATIO | 12.64 | 1.20 | 1.01 | 4.21 | 0.81 | 11.97 | 0.75 | 0.91 | 5.45 | 1.36 | 6.02 | 0.48 | 0.48 | 4.25 | 0.07 | |
| SIGNIFICANCE % | 99.99 | 69.37 | 58.65 | 99.88 | 45.30 | 99.99 | 40.99 | 52.79 | 99.98 | 76.19 | 99.99 | 20.93 | 20.99 | 99.89 | 0.55 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 1.2 | 0.1 | 0.9 | 0.9 | 2.9 | 1.9 | 0.1 | 0.9 | 1.0 | 3.8 | 0.9 | 0.0 | 0.7 | 0.8 | 2.4 | 37 |
| 21-30% STATE REVENUE | 0.9 | 0.2 | 0.8 | 1.0 | 2.9 | 1.4 | 0.3 | 0.7 | 1.0 | 3.3 | 0.6 | 0.1 | 0.8 | 1.1 | 2.7 | 64 |
| 31-40% STATE REVENUE | 1.0 | 0.3 | 1.0 | 0.9 | 3.2 | 1.4 | 0.4 | 0.9 | 0.9 | 3.6 | 0.8 | 0.2 | 1.0 | 1.0 | 3.0 | 86 |
| 41-50% STATE REVENUE | 0.9 | 0.2 | 1.1 | 1.3 | 3.6 | 1.4 | 0.2 | 1.2 | 1.2 | 4.1 | 0.8 | 0.2 | 1.1 | 1.3 | 3.4 | 83 |
| 51-60% STATE REVENUE | 1.0 | 0.2 | 1.0 | 1.0 | 3.2 | 1.3 | 0.3 | 1.1 | 0.8 | 3.4 | 0.8 | 0.2 | 1.0 | 1.1 | 3.1 | 67 |
| OVER 60% STATE REVENUE | 1.3 | 0.2 | 1.0 | 0.7 | 3.3 | 1.8 | 0.3 | 1.2 | 0.7 | 3.9 | 1.0 | 0.2 | 0.9 | 0.7 | 2.9 | 36 |
| F-RATIO | 1.17 | 3.65 | 0.70 | 1.59 | 0.69 | 0.99 | 2.07 | 0.58 | 1.39 | 1.23 | 0.24 | 3.32 | 0.87 | 1.63 | 1.08 | |
| SIGNIFICANCE % | 67.47 | 99.65 | 37.59 | 84.00 | 36.96 | 57.73 | 93.20 | 28.35 | 77.56 | 70.70 | 5.62 | 99.37 | 49.53 | 84.96 | 62.83 | |

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# Percent Special Education
# Participation by % Title I Revenues:
# Summary Information

## Parameter:

% Title I Revenues is the percentage of Federal income received by a district which is ESEA Title I money. % Title I Revenues indicates the degree which a district depends upon Title I Award money for Federal support. Also, Title I Revenues are partially directed at children who are slow learners and are placed in Other programs.

## General Observations:

National Trends: Percent Title I Revenues has a wide-ranging effect on the participation of all enrollments in all areas of special education. Again, non-minority participation in overall special education is constant but participation within the individual aspects of special education shifts. For minority pupils, participation in overall special education grows as percent Title I Revenues increase, due to trends of participation in the component programs.

For minority students, an overall increase in participation in special education results from increasing participation in EMR and Other programs as percent Title I Revenues rises. Partially negating these increases is a decline in minority involvement in Special Disabilities programs.

For non-minority pupils, there are slight upward trends in participation in EMR and Other programs and a slight downward trend in Special Disabilities participation as the proportion of Title I Award money in a district's Federal income becomes larger. The net result is a participation in overall special education which is constant with regard to Percent Title I Revenues.

For the nation's total enrollment, participation in EMR, Other, and total special education programs rises and in Special Disabilities programs falls as Percent Title I Revenues increases.

Northeast Regional Trends: No statistically meaningful trends in special education participation surface when the impact of Title I Revenues upon a district's Federal income is analyzed.

Midwest Regional Trends: For all enrollments, participation in overall special education increases as Percent Title I Revenues increases. These trends are directly attributable to one aspect of special education: Other programs. In the Midwest, minority, non-minority and total participation in Other programs clearly increases as the percentage of Title I funds in a district's Federal income increases.

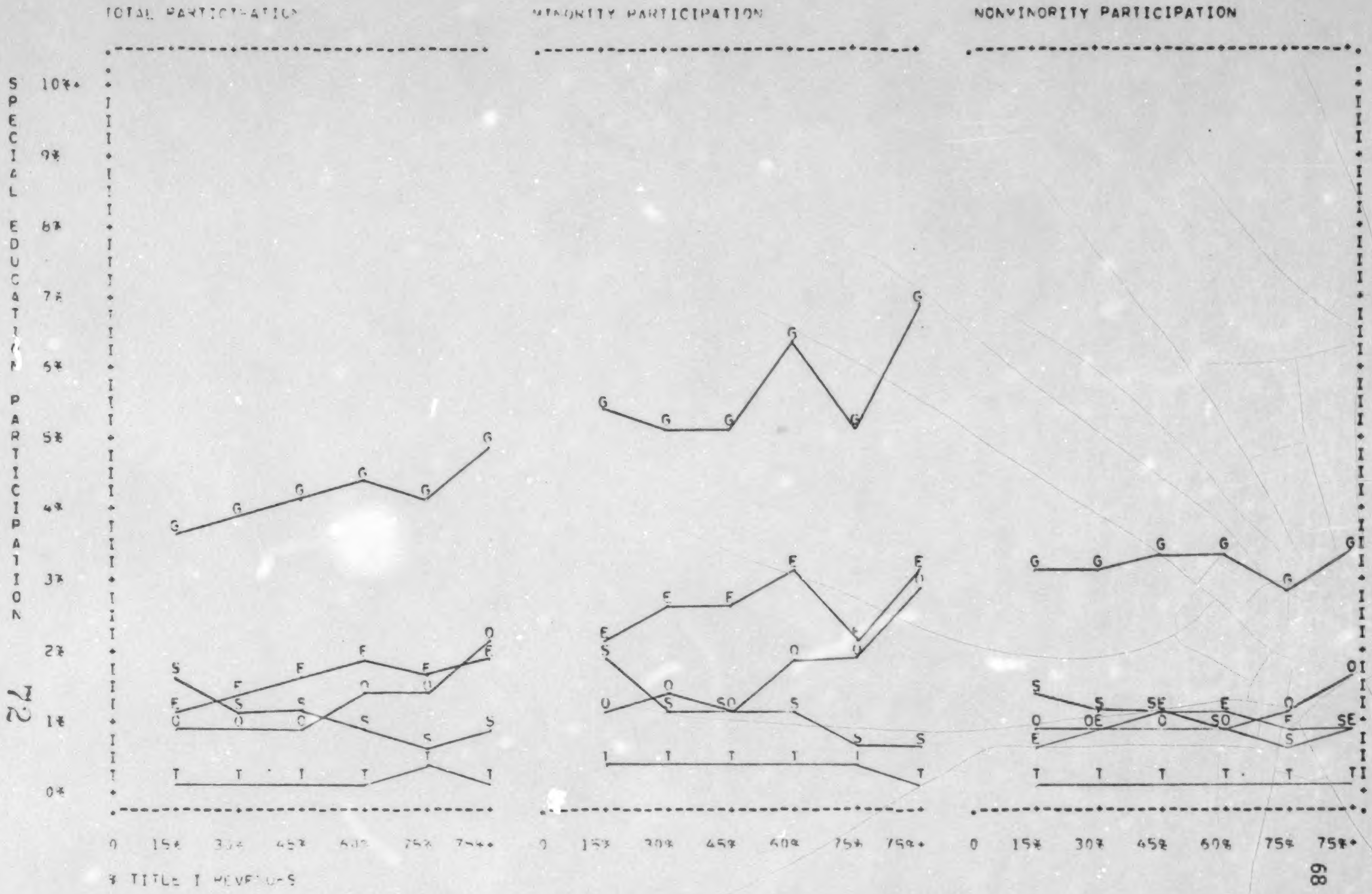
South Regional Trends: There is a definite and statistically significant increase in total participation as percent Title I Revenues increases in the South. This increase is most noticeable in Other and EMR program participation. In contrast, involvement in Special Disabilities programs falls off as percent Title I Revenues in districts rise.

As is the common pattern in these analyses, trends are more dramatic for minority pupils than for non-minority pupils. For minority students, there are clear increases in Other and overall special education programs and decreases in Special Disabilities programs as percent Title I Revenues rises. For non-minority students, participation in all special education programs is nearly constant. A rise in Other programs involvement is balanced by a fall in Special Disabilities involvement as percent Title I Revenues increases.

West Regional Trends: The curves depicting special education participation's relation to Title I Revenues in the West would often occur, according to the F test, as a product of chance fluctuations.

PERCENT SPECIAL EDUCATION PARTICIPATION BY % TITLE I REVENUES

NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

```
GEOGRAPHIC AREA                  ---TOTAL % PARTICIPATION----      --MINORITY % PARTICIPATION--      NONMINORITY % PARTICIPATION      NUM
   ANALYSIS CATEGORY              EMR   TMR  OTHER DISAB TOTAL      EMR   TMR  OTHER DISAB TOTAL      EMR   TMR  OTHER DISAB TOTAL   DIST
-------------------------------  ----  ----  ----  ----  ----      ----  ----  ----  ----  ----      ----  ----  ----  ----  ----   ----

NATION
   00-15% TITLE I MONEY           1.0   0.2   0.9   1.5   3.7       2.0   0.3   1.2   1.9   5.4       0.7   0.2   0.8   1.4   3.2    248
   16-30% TITLE I MONEY           1.4   0.2   1.0   1.1   3.8       2.5   0.3   1.3   1.0   5.2       1.0   0.2   0.9   1.1   3.2    259
   31-45% TITLE I MONEY           1.7   0.2   1.0   1.1   4.1       2.6   0.3   1.2   1.1   5.2       1.1   0.2   0.8   1.2   3.3    339
   46-60% TITLE I MONEY           1.9   0.2   1.3   1.0   4.4       3.2   0.3   1.9   1.0   6.4       1.1   0.2   1.0   0.9   3.3    296
   61-75% TITLE I MONEY           1.6   0.3   1.4   0.7   4.0       2.2   0.3   1.8   0.7   5.1       1.0   0.2   1.0   0.7   2.9    275
   OVER 75% TITLE I MONEY         1.9   0.2   2.1   0.8   5.0       3.1   0.2   2.8   0.7   6.8       0.9   0.1   1.5   0.8   3.4    125
   F-RATIO                      10.34  1.48  5.56  2.93  4.36      5.55  1.41  4.46  3.23  3.18      2.30  2.45  3.29  3.79  0.32
   SIGNIFICANCE %               99.99 80.77 99.99 98.76 99.91     99.99 78.43 99.92 99.32 99.25     95.80 96.88 99.39 99.76 10.00

NORTHEAST
   00-15% TITLE I MONEY           1.2   0.2   0.7   0.6   2.6       2.1   0.2   0.9   0.3   3.5       0.7   0.2   0.6   0.7   2.2     11
   16-30% TITLE I MONEY           1.1   0.2   1.4   1.4   4.1       1.8   0.3   2.7   1.3   6.1       0.8   0.2   1.0   1.4   3.4     17
   31-45% TITLE I MONEY           2.1   0.4   0.7   0.7   3.8       2.9   0.4   0.9   0.5   4.7       1.3   0.4   0.5   0.8   3.0     28
   46-60% TITLE I MONEY           1.4   0.3   0.9   1.1   3.7       2.0   0.3   1.4   1.3   4.9       0.9   0.3   0.7   1.0   2.8     31
   61-75% TITLE I MONEY           1.1   0.3   1.3   0.7   3.3       1.3   0.3   1.8   0.6   3.9       0.8   0.3   0.6   0.7   2.4     29
   OVER 75% TITLE I MONEY         1.3   0.2   0.8   1.0   3.3       2.1   0.2   0.9   1.1   4.3       0.6   0.2   0.7   1.0   2.5     23
   F-RATIO                       1.10  0.78  0.50  0.33  0.70      0.99  1.57  0.41  0.40  0.52      0.91  0.85  0.31  0.37  0.47
   SIGNIFICANCE %               63.38 43.52 22.31 10.82 37.31     57.30 82.86 15.64 15.38 23.81     52.47 47.93  9.49 12.93 19.93

MIDWEST
   00-15% TITLE I MONEY           1.4   0.2   0.5   0.7   2.9       3.0   0.3   0.8   0.7   4.7       1.0   0.2   0.5   0.7   2.4     33
   16-30% TITLE I MONEY           2.1   0.3   0.9   0.9   4.3       3.1   0.3   1.1   0.6   5.1       1.7   0.3   0.8   1.1   3.9     40
   31-45% TITLE I MONEY           2.1   0.2   0.7   1.3   4.4       3.0   0.2   0.7   1.4   5.3       1.4   0.2   0.7   1.3   3.6     64
   46-60% TITLE I MONEY           1.8   0.3   0.6   0.9   3.7       2.7   0.3   0.8   0.8   4.6       1.4   0.3   0.6   1.0   3.2     32
   61-75% TITLE I MONEY           1.9   0.3   1.5   0.8   4.5       3.4   0.2   1.8   0.8   6.3       1.1   0.3   1.3   0.8   3.5     21
   OVER 75% TITLE I MONEY         2.3   0.0   2.1   1.2   5.7       3.7   0.0   3.6   0.7   8.0       1.6   0.1   1.3   1.5   4.5     12
   F-RATIO                       0.60  1.36  3.03  0.23  1.64      0.66  1.90  2.30  0.84  1.78      0.42  1.18  3.10  0.37  1.29
   SIGNIFICANCE %               29.95 76.00 98.81  5.27 84.96     34.32 90.41 95.38 47.46 88.32     16.37 68.00 98.96 13.27 73.29

SOUTH
   00-15% TITLE I MONEY           1.0   0.3   0.9   1.8   4.0       2.1   0.3   1.2   2.2   5.8       0.7   0.2   0.8   1.6   3.3    110
   16-30% TITLE I MONEY           1.7   0.3   0.9   1.2   4.1       3.5   0.4   1.5   1.3   6.6       1.0   0.2   0.7   1.2   3.1     91
   31-45% TITLE I MONEY           1.7   0.2   1.4   1.1   4.4       2.8   0.3   2.1   1.0   6.3       1.0   0.2   0.9   1.2   3.2    165
   46-60% TITLE I MONEY           2.2   0.3   1.6   1.0   5.0       3.9   0.4   2.3   1.1   7.6       1.1   0.2   1.2   0.9   3.4    185
   61-75% TITLE I MONEY           2.5   0.3   1.7   0.8   5.2       4.1   0.4   2.0   0.9   7.4       1.2   0.2   1.5   0.6   3.5    199
   OVER 75% TITLE I MONEY         2.3   0.1   3.1   0.6   6.2       3.7   0.2   4.1   0.5   8.5       1.0   0.1   2.2   0.7   4.0     78
   F-RATIO                       5.97  2.17  5.31  3.70  4.18      1.17  1.58  4.21  3.41  2.00      1.54  4.53  3.67  5.07  1.59
   SIGNIFICANCE %               99.99 94.52 99.98 99.71 99.89     67.70 83.71 99.88 99.50 92.48     82.68 99.93 99.69 99.97 84.05

WEST
   00-15% TITLE I MONEY           0.9   0.2   1.2   1.2   3.5       1.5   0.2   1.4   1.5   4.7       0.7   0.2   1.1   1.2   3.2     94
   16-30% TITLE I MONEY           1.0   0.2   1.0   1.0   3.3       1.6   0.3   1.1   0.9   3.8       0.8   0.2   1.0   1.1   3.1    111
   31-45% TITLE I MONEY           1.0   0.2   0.7   1.0   3.0       1.4   0.3   0.6   0.9   3.2       0.7   0.2   0.7   1.1   2.7     82
   46-60% TITLE I MONEY           1.0   0.1   1.0   0.8   3.0       1.2   0.2   1.1   0.6   3.1       0.9   0.1   1.0   0.9   3.0     48
   61-75% TITLE I MONEY           0.8   0.1   0.5   0.7   2.1       1.1   0.2   0.4   0.8   2.5       0.6   0.1   0.6   0.6   1.8     26
   OVER 75% TITLE I MONEY         1.3   0.3   0.8   0.4   2.9       2.1   0.3   0.8   0.3   3.6       0.8   0.2   0.8   0.5   2.4     12
   F-RATIO                       1.20  0.75  1.11  1.38  0.87      1.34  0.58  1.46  1.85  1.36      0.84  0.72  1.20  1.15  0.83
   SIGNIFICANCE %               69.10 41.00 64.33 76.84 49.48     75.50 28.27 79.81 89.88 76.40     47.69 38.87 69.38 66.91 46.68
```

# Percent Special Education
# Participation by Percent Burden:
# Summary Information

## Parameter:

Percent Burden is defined to be the percentage of a person's income going to educational purposes. It is calculated by dividing a district's per pupil expenditure by its per capita income. Percent Burden measures the financial strain a district's educational system places on its inhabitants.

## General Observations:

National Trends: Trends in national participation in special education as percent Burden varies are not clearcut. For minority, non-minority and total enrollments, there appears to be an increase in EMR participation, a decrease in Special Disabilities participation, and an increase in total special education participation as percent Burden rises. Involvement in TMR and Other programs seems to be insensitive to a district's percent Burden, for all enrollments.

Northeast Regional Trends: The only observed trend in the Northeast which is backed up by a high F Ratio concerns the participation of the total enrollment in EMR. Involvement in this aspect of special education increases as percent Burden grows.

Midwest Regional Trends: In the Midwest, participation rates in all aspects of special education change drastically as percent Burden increases. However, these changes fit no simple pattern. If percent Burden has an impact upon special education participation, it is too complicated to be explained using the available data.

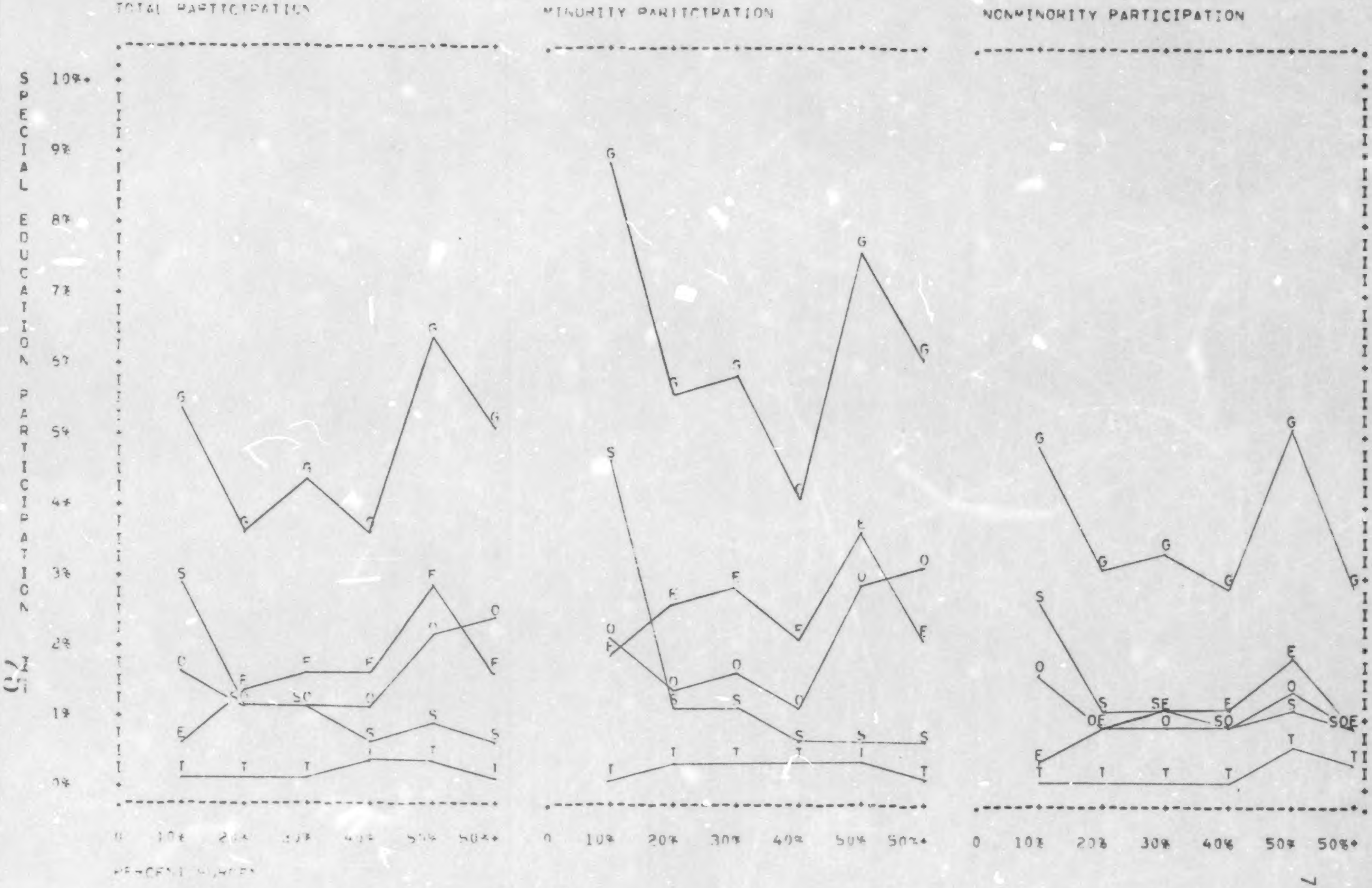
South Regional Trends: For the South's total enrollment, several statistically meaningful trends emerge. Total participation rises as percent Burden increases. Involvement in EMR and Other programs rises and involvement in Special Disabilities programs falls as percent Burden increases.

For minority and non-minority enrollments, the clearest trend is in Special Disabilities participation: it clearly declines as percent Burden rises.

West Regional Trends: No intuitively interpreted relationships between participation in special education and districts' percent Burden emerge in a study of special education for the West.

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION / PERCENT BURDEN HEW/OASPE

NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT BURDEN

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM DIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | |
| NATION | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.7 | 0.1 | 1.7 | 2.9 | 5.4 | 1.8 | 0.2 | 2.2 | 4.6 | 8.8 | 0.5 | 0.1 | 1.6 | 2.6 | 4.9 | 15 |
| 11-20% BURDEN | 1.4 | 0.2 | 1.0 | 1.1 | 3.7 | 2.6 | 0.3 | 1.5 | 1.1 | 5.5 | 0.9 | 0.2 | 0.9 | 1.0 | 3.0 | 492 |
| 21-30% BURDEN | 1.7 | 0.2 | 1.2 | 1.2 | 4.3 | 2.8 | 0.3 | 1.6 | 1.2 | 5.9 | 1.1 | 0.2 | 0.9 | 1.2 | 3.3 | 756 |
| 31-40% BURDEN | 1.6 | 0.3 | 1.1 | 0.7 | 3.7 | 2.1 | 0.3 | 1.2 | 0.6 | 4.1 | 1.0 | 0.2 | 1.0 | 0.8 | 3.0 | 213 |
| 41-50% BURDEN | 2.8 | 0.5 | 2.1 | 0.9 | 6.3 | 3.7 | 0.4 | 2.8 | 0.6 | 7.5 | 1.9 | 0.5 | 1.4 | 1.2 | 5.1 | 43 |
| OVER 50% BURDEN | 1.7 | 0.2 | 2.5 | 0.6 | 5.0 | 2.2 | 0.1 | 3.2 | 0.5 | 6.0 | 0.8 | 0.3 | 0.9 | 0.8 | 2.8 | 23 |
| F-RATIO | 6.75 | 5.21 | 7.07 | 3.21 | 6.85 | 3.46 | 3.22 | 2.64 | 4.90 | 4.19 | 2.92 | 3.43 | 6.52 | 3.30 | 3.24 | |
| SIGNIFICANCE % | 99.93 | 99.98 | 99.99 | 99.29 | 99.99 | 99.56 | 99.30 | 97.85 | 99.96 | 99.89 | 98.74 | 99.53 | 99.99 | 99.40 | 99.32 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 |
| 11-20% BURDEN | 1.1 | 0.2 | 0.8 | 0.8 | 3.0 | 2.2 | 0.2 | 2.0 | 1.1 | 5.5 | 0.9 | 0.2 | 0.6 | 0.8 | 2.4 | 21 |
| 21-30% BURDEN | 1.2 | 0.3 | 1.5 | 1.2 | 4.2 | 1.9 | 0.3 | 3.0 | 1.1 | 6.3 | 0.8 | 0.3 | 0.7 | 1.2 | 3.0 | 68 |
| 31-40% BURDEN | 1.4 | 0.3 | 0.9 | 0.6 | 3.2 | 1.6 | 0.3 | 1.1 | 0.6 | 3.7 | 0.9 | 0.3 | 0.6 | 0.7 | 2.5 | 41 |
| 41-50% BURDEN | 1.7 | 0.4 | 1.5 | 0.7 | 4.2 | 2.6 | 0.4 | 2.3 | 0.5 | 5.8 | 1.0 | 0.3 | 0.9 | 0.8 | 3.1 | 8 |
| OVER 50% BURDEN | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 2.89 | 1.32 | 0.51 | 0.47 | 0.71 | 1.51 | 1.19 | 0.44 | 0.45 | 0.63 | 1.58 | 0.81 | 0.75 | 0.43 | 0.62 | |
| SIGNIFICANCE % | 97.56 | 73.68 | 27.09 | 23.64 | 40.87 | 79.84 | 68.23 | 21.50 | 22.51 | 35.27 | 81.84 | 47.75 | 43.91 | 21.06 | 34.61 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| 11-20% BURDEN | 1.6 | 0.2 | 0.7 | 0.6 | 3.0 | 3.0 | 0.3 | 1.1 | 0.5 | 4.8 | 1.2 | 0.2 | 0.5 | 0.6 | 2.6 | 38 |
| 21-30% BURDEN | 2.0 | 0.2 | 0.8 | 1.3 | 4.3 | 3.0 | 0.2 | 0.8 | 1.4 | 5.5 | 1.4 | 0.2 | 0.7 | 1.3 | 3.6 | 121 |
| 31-40% BURDEN | 2.0 | 0.2 | 0.6 | 0.7 | 3.4 | 2.5 | 0.1 | 0.6 | 0.5 | 3.7 | 1.4 | 0.2 | 0.5 | 0.9 | 3.1 | 31 |
| 41-50% BURDEN | 12.1 | 2.1 | 5.9 | 4.5 | 24.6 | 17.5 | 1.0 | 6.0 | 2.3 | 26.7 | 9.6 | 2.6 | 5.8 | 5.6 | 23.6 | 10 |
| OVER 50% BURDEN | 0.6 | 0.0 | 0.8 | 0.2 | 1.6 | 0.7 | 0.0 | 0.9 | 0.2 | 1.9 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 2 |
| F-RATIO | 6.23 | 5.51 | 4.82 | 1.59 | 7.47 | 8.64 | 2.41 | 2.17 | 1.77 | 8.55 | 4.18 | 5.96 | 4.61 | 1.37 | 5.53 | |
| SIGNIFICANCE % | 99.98 | 99.95 | 99.87 | 82.21 | 99.99 | 99.99 | 95.04 | 92.77 | 86.48 | 99.99 | 99.68 | 99.97 | 99.83 | 75.62 | 99.95 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.7 | 0.1 | 1.7 | 3.0 | 5.5 | 1.9 | 0.2 | 2.1 | 4.7 | 8.9 | 0.5 | 0.1 | 1.6 | 2.7 | 4.9 | 13 |
| 11-20% BURDEN | 1.5 | 0.2 | 1.1 | 1.1 | 4.0 | 3.1 | 0.4 | 1.8 | 1.2 | 6.4 | 0.9 | 0.2 | 0.9 | 1.1 | 3.1 | 340 |
| 21-30% BURDEN | 2.1 | 0.3 | 1.5 | 1.2 | 5.1 | 3.3 | 0.3 | 2.1 | 1.3 | 7.1 | 1.1 | 0.2 | 1.0 | 1.2 | 3.5 | 347 |
| 31-40% BURDEN | 2.7 | 0.2 | 2.4 | 0.6 | 5.9 | 3.9 | 0.3 | 2.1 | 0.6 | 6.9 | 1.1 | 0.1 | 2.8 | 0.6 | 4.6 | 94 |
| 41-50% BURDEN | 2.9 | 0.4 | 2.1 | 0.6 | 6.0 | 3.5 | 0.5 | 2.6 | 0.6 | 7.2 | 1.0 | 0.2 | 0.5 | 0.4 | 2.1 | 20 |
| OVER 50% BURDEN | 2.5 | 0.1 | 3.5 | 0.6 | 6.7 | 2.9 | 0.1 | 4.0 | 0.5 | 7.5 | 1.0 | 0.1 | 1.3 | 0.8 | 3.1 | 14 |
| F-RATIO | 7.60 | 1.83 | 3.62 | 3.94 | 3.79 | 1.32 | 1.77 | 0.92 | 5.21 | 0.73 | 0.66 | 1.52 | 4.57 | 4.81 | 2.42 | |
| SIGNIFICANCE % | 99.99 | 90.53 | 99.66 | 99.81 | 99.75 | 74.95 | 88.34 | 53.35 | 99.98 | 39.79 | 33.97 | 81.89 | 99.94 | 99.96 | 96.61 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.5 | 0.0 | 1.8 | 0.0 | 2.3 | 0.3 | 0.0 | 3.8 | 0.0 | 4.2 | 0.5 | 0.0 | 1.0 | 0.0 | 1.5 | 1 |
| 11-20% BURDEN | 0.9 | 0.2 | 0.9 | 1.1 | 3.0 | 1.3 | 0.3 | 0.7 | 1.0 | 3.3 | 0.7 | 0.2 | 1.0 | 1.1 | 2.9 | 93 |
| 21-30% BURDEN | 1.1 | 0.2 | 1.0 | 1.0 | 3.2 | 1.6 | 0.2 | 1.0 | 0.9 | 3.7 | 0.8 | 0.2 | 0.9 | 1.1 | 3.0 | 220 |
| 31-40% BURDEN | 1.2 | 0.2 | 1.0 | 1.1 | 3.5 | 1.5 | 0.2 | 1.1 | 1.0 | 3.8 | 0.9 | 0.2 | 1.0 | 1.1 | 3.2 | 47 |
| 41-50% BURDEN | 1.6 | 0.0 | 5.0 | 0.5 | 7.2 | 1.9 | 0.0 | 6.3 | 0.5 | 8.8 | 1.1 | 0.0 | 3.0 | 0.6 | 4.6 | 5 |
| OVER 50% BURDEN | 0.8 | 0.4 | 1.2 | 0.7 | 3.1 | 0.9 | 0.2 | 1.7 | 0.6 | 3.5 | 0.7 | 0.5 | 0.8 | 0.8 | 2.7 | 7 |
| F-RATIO | 1.90 | 1.75 | 10.27 | 1.04 | 3.51 | 1.03 | 1.64 | 7.08 | 1.06 | 1.85 | 1.67 | 1.30 | 6.90 | 1.00 | 1.30 | |
| SIGNIFICANCE % | 90.75 | 87.78 | 99.99 | 60.78 | 99.55 | 60.04 | 85.12 | 99.99 | 61.56 | 89.82 | 85.97 | 73.94 | 99.99 | 58.43 | 73.63 | |

# Percent Special Education
# Participation by Percent Poverty - $3,000+:
# Summary Information

## Parameter:

Percent Poverty - $3,000+ is defined to be the percentage of people living below the poverty level in districts with per capita incomes greater than $3,000. Percent Poverty - $3,000+ assists in analyzing the effect of districts' economic status upon special education participation.

## General Observations:

National Trends: First of all, no districts in the file have per capita incomes greater than $3,000, with over 15% of the population living in poverty. Consequently, observation of trends is limited.

However, all enrollments' participation in Special Disabilities decreases as percent poverty increases in districts with per capita incomes greater than $3,000.

Northeast Regional Trends: The decline in Special Disabilities participation as percent poverty for districts with high per capita incomes increases also holds in the Northeast. However, no other trends emerge.

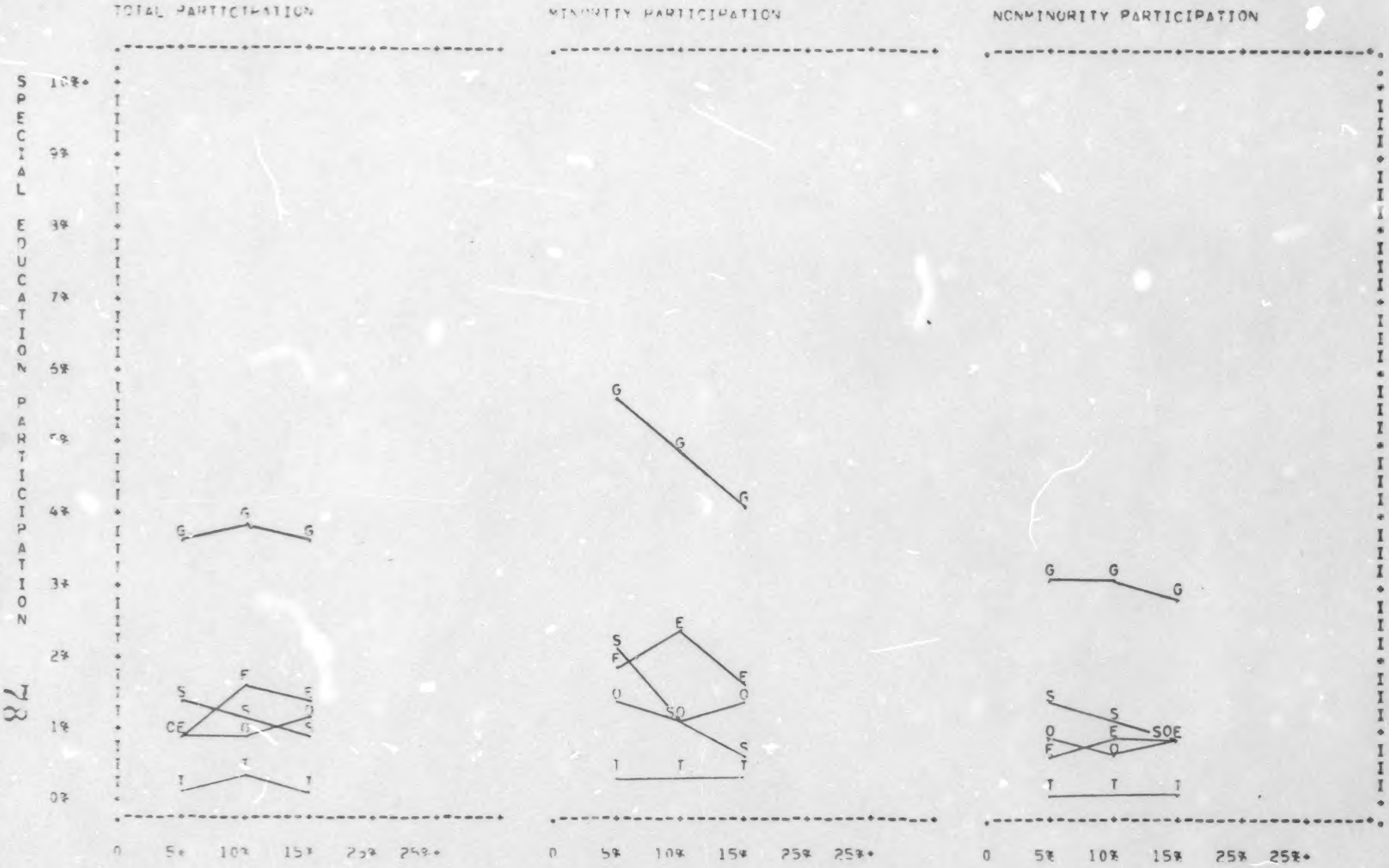
Midwest Regional Trends: A few clear trends, supported by high F Ratios, are found in the Midwest. Total enrollment participation in special education, especially EMR, rises as percent poverty increases in districts with high per capita income. These trends hold for both minority and non-minority enrollments; however, the trends are more pronounced for non-minority pupils.

South Regional Trends: In the South, participation of non-minority and total enrollments in EMR increases as percent poverty increases for districts with high per capita income.

West Regional Trends: In the West, two counter trends are at work in the participation of all enrollments in special education as percent poverty varies in districts with high per capita income. For minority, non-minority and total enrollments, participation in EMR rises and in Special Disabilities programs falls as the parameter increases.

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000+

NATION



PERCENT POVERTY - $3000+

KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

AUG 04, 1975

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000+

HEW/OASPE

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.9 | 0.2 | 0.9 | 1.5 | 3.5 | 1.8 | 0.3 | 1.5 | 2.1 | 5.7 | 0.7 | 0.2 | 0.8 | 1.4 | 3.1 | 222 |
| 06-10% POVERTY | 1.6 | 0.3 | 0.8 | 1.2 | 3.8 | 2.4 | 0.3 | 1.0 | 1.1 | 4.9 | 1.0 | 0.2 | 0.7 | 1.2 | 3.1 | 185 |
| 11-15% POVERTY | 1.4 | 0.2 | 1.2 | 0.8 | 3.6 | 1.7 | 0.3 | 1.5 | 0.7 | 4.1 | 0.9 | 0.2 | 0.9 | 0.9 | 2.9 | 32 |
| 16-25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 34.56 | 2.96 | 0.00 | 2.19 | 1.58 | 13.05 | 0.53 | 0.11 | 3.71 | 0.09 | 20.96 | 3.32 | 0.30 | 1.26 | 0.35 | |
| SIGNIFICANCE % | 99.99 | 94.88 | 1.14 | 88.89 | 79.46 | 99.99 | 40.58 | 11.24 | 97.55 | 9.69 | 99.99 | 96.42 | 25.22 | 71.61 | 28.75 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.9 | 0.2 | 1.0 | 1.4 | 3.5 | 2.0 | 0.2 | 2.1 | 2.0 | 6.3 | 0.7 | 0.2 | 0.7 | 1.3 | 2.9 | 59 |
| 06-10% POVERTY | 1.9 | 0.4 | 1.5 | 0.7 | 4.5 | 2.4 | 0.4 | 2.3 | 0.7 | 5.7 | 1.3 | 0.4 | 0.6 | 0.8 | 3.1 | 28 |
| 11-15% POVERTY | 1.0 | 0.3 | 1.0 | 0.6 | 2.8 | 1.1 | 0.3 | 1.2 | 0.6 | 3.2 | 0.6 | 0.3 | 0.6 | 0.6 | 2.1 | 7 |
| 16-25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 14.41 | 5.86 | 0.35 | 2.44 | 0.28 | [illegible].17 | 10.24 | 0.23 | 2.59 | 0.48 | 11.18 | 4.77 | 0.36 | 2.33 | 0.14 | |
| SIGNIFICANCE % | 99.99 | 99.56 | 29.06 | 90.88 | 23.69 | 6[illegible].62 | 99.98 | 20.66 | 92.10 | 37.69 | 99.99 | 98.93 | 29.68 | 89.86 | 13.63 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.3 | 0.3 | 0.9 | 0.9 | 3.4 | 2.9 | 0.3 | 1.8 | 0.9 | 5.9 | 1.0 | 0.3 | 0.7 | 0.9 | 2.8 | 59 |
| 06-10% POVERTY | 2.1 | 0.2 | 0.7 | 1.4 | 4.4 | 2.9 | 0.2 | 0.7 | 1.4 | 5.2 | 1.4 | 0.3 | 0.6 | 1.4 | 3.7 | 46 |
| 11-15% POVERTY | 3.3 | 0.0 | 0.7 | 1.0 | 5.0 | 3.9 | 0.0 | 0.8 | 0.6 | 5.3 | 2.8 | 0.0 | 0.6 | 1.3 | 4.7 | 1 |
| 16-25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 13.58 | 0.72 | 0.03 | 0.10 | 2.25 | 2.21 | 0.30 | 0.17 | 0.22 | 0.09 | 14.18 | 0.96 | 0.02 | 0.61 | 3.14 | |
| SIGNIFICANCE % | 99.99 | 50.41 | 3.81 | 10.41 | 89.18 | 88.75 | 25.21 | 15.81 | 19.73 | 9.27 | 99.99 | 61.17 | 2.83 | 44.73 | 95.41 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.8 | 0.3 | 0.7 | 1.9 | 3.7 | 1.8 | 0.4 | 1.0 | 3.8 | 7.0 | 0.6 | 0.3 | 0.7 | 1.6 | 3.2 | 29 |
| 06-10% POVERTY | 1.4 | 0.2 | 0.9 | 1.4 | 4.0 | 2.9 | 0.3 | 1.3 | 1.4 | 6.0 | 0.7 | 0.2 | 0.7 | 1.5 | 3.1 | 41 |
| 11-15% POVERTY | 1.7 | 0.2 | 1.6 | 1.0 | 4.5 | 2.5 | 0.3 | 2.1 | 0.8 | 5.6 | 0.9 | 0.2 | 1.2 | 1.2 | 3.5 | 18 |
| 16-25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 20.24 | 0.39 | 0.28 | 0.83 | 0.87 | 3.97 | 0.25 | 0.17 | 1.52 | 0.25 | 9.39 | 0.22 | 0.08 | 0.31 | 0.06 | |
| SIGNIFICANCE % | 99.99 | 31.45 | 23.94 | 55.85 | 57.28 | 97.80 | 21.94 | 15.97 | 77.65 | 21.59 | 99.96 | 19.78 | 8.20 | 26.27 | 7.11 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.7 | 0.2 | 1.2 | 1.4 | 3.5 | 0.9 | 0.3 | 1.3 | 1.7 | 4.2 | 0.6 | 0.2 | 1.1 | 1.4 | 3.3 | 75 |
| 06-10% POVERTY | 1.0 | 0.2 | 0.7 | 0.8 | 2.8 | 1.5 | 0.3 | 0.6 | 0.8 | 3.2 | 0.8 | 0.2 | 0.7 | 0.8 | 2.5 | 70 |
| 11-15% POVERTY | 1.9 | 0.2 | 0.6 | 0.7 | 3.4 | 2.5 | 0.2 | 0.8 | 0.7 | 4.2 | 1.3 | 0.1 | 0.4 | 0.7 | 2.5 | 6 |
| 16-25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 5.77 | 0.68 | 1.15 | 2.36 | 0.32 | 4.56 | 0.19 | 0.36 | 3.19 | 0.50 | 4.98 | 1.13 | 1.19 | 2.24 | 0.51 | |
| SIGNIFICANCE % | 99.58 | 48.89 | 68.13 | 90.37 | 26.84 | 98.81 | 17.65 | 29.41 | 95.71 | 38.93 | 99.17 | 67.37 | 69.22 | 89.19 | 39.12 | |

# Percent Special Education
# By Percent Poverty - $3,000-:
# Summary Information

Parameter:

Percent Poverty - $3,000- is the percentage of people living in poverty in districts with per capita incomes less than $3,000. It serves as a measure of a districts financial composition.

General Observations:

National Trends: A clear increase in the nation's total participation in overall special education is accompanied by an increase in EMR involvement and a decrease in Special Disabilities participation (as percent poverty rises in districts with per capita incomes less than $3,000).

For minority pupils, increasing participation in EMR and Other programs leads to an increase in participation in overall special education as the parameter increases. Minority participation in Special Disabilities programs declines as the parameter increases. For non-minority pupils, involvement in Special Disabilities programs also declines but no other trends for non-minority participation are supported by the F test.

Northeast Regional Trends: Any apparent trends in special education participation as percent poverty increases in districts with per capita incomes less than $3,000 have at least a 10% chance of arising from random fluctuations, according to the F test. Uncertainty of this magnitude precludes drawing conclusions about the relation of participation to the parameter being analyzed.

Midwest Regional Trends: In the Midwest, no observed trends are found which are supported by the F test.

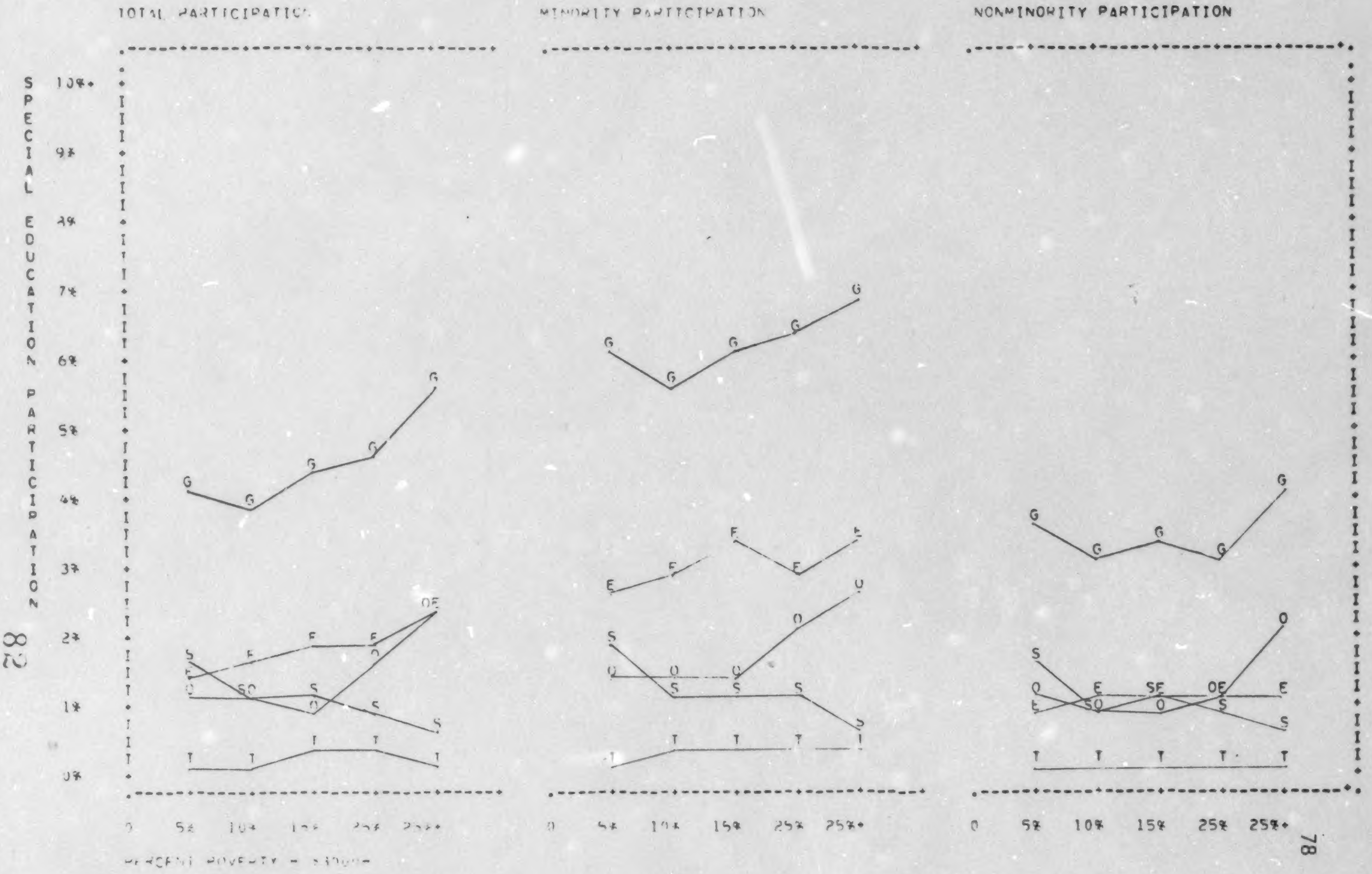
South Regional Trends: Several trends emerge in the South involving participation and percent poverty, $3,000-, particularly for minority pupils. For total enrollments, overall participation rises - due to increasing EMR and Other programs involvement - as poorer districts are considered. However, total participation in Special Disabilities programs declines with increasing poverty.

For minority pupils, most trends run counter to the trends observed for the total enrollment. Minority participation in EMR, Special Disabilities, and overall special education all decline as poorer districts are considered.

For non-minority pupils, involvement in Special Disabilities programs falls, and in Other programs rises as percent poverty increases in districts with per capita incomes below $3,000.

West Regional Trends: Total participation in Special Disabilities programs declines as districts with low per capita income become poorer. This behavior is exhibited by both minority and non-minority enrollments, although the non-minority trend is statistically more significant.

NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

AUG 04, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000-

HEW/OASPE

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.3 | 0.1 | 1.1 | 1.7 | 4.2 | 2.6 | 0.1 | 1.4 | 1.9 | 6.1 | 1.0 | 0.1 | 1.0 | 1.6 | 3.7 | 37 |
| 06-10% POVERTY | 1.6 | 0.2 | 1.0 | 1.0 | 3.8 | 2.8 | 0.3 | 1.4 | 1.1 | 5.6 | 1.2 | 0.2 | 0.9 | 1.0 | 3.2 | 200 |
| 11-15% POVERTY | 1.9 | 0.3 | 1.0 | 1.1 | 4.3 | 3.5 | 0.3 | 1.3 | 1.1 | 6.2 | 1.1 | 0.2 | 0.8 | 1.1 | 3.3 | 267 |
| 16-25% POVERTY | 1.7 | 0.3 | 1.6 | 0.9 | 4.5 | 2.8 | 0.3 | 2.1 | 1.0 | 6.3 | 1.1 | 0.2 | 1.1 | 0.8 | 3.2 | 320 |
| OVER 25% POVERTY | 2.4 | 0.2 | 2.5 | 0.6 | 5.7 | 3.3 | 0.3 | 2.7 | 0.7 | 6.9 | 1.2 | 0.1 | 2.2 | 0.5 | 4.0 | 279 |
| F-RATIO | 5.29 | 2.62 | 5.09 | 8.04 | 3.66 | 1.96 | 2.83 | 2.90 | 6.10 | 2.60 | 1.44 | 3.92 | 2.31 | 10.98 | 0.64 | |
| SIGNIFICANCE % | 99.94 | 96.70 | 99.93 | 99.99 | 99.40 | 90.24 | 97.68 | 97.91 | 99.98 | 96.56 | 78.32 | 99.60 | 94.46 | 99.99 | 36.23 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.3 | 0.2 | 0.7 | 0.5 | 2.7 | 3.2 | 0.2 | 1.1 | 0.7 | 5.2 | 0.8 | 0.2 | 0.6 | 0.5 | 2.1 | 10 |
| 06-10% POVERTY | 1.6 | 0.3 | 0.9 | 0.7 | 3.5 | 3.0 | 0.3 | 1.6 | 0.7 | 5.6 | 1.1 | 0.3 | 0.6 | 0.7 | 2.7 | 22 |
| 11-15% POVERTY | 1.8 | 0.2 | 0.6 | 0.9 | 3.5 | 2.2 | 0.3 | 0.6 | 0.5 | 3.6 | 1.3 | 0.2 | 0.6 | 1.3 | 3.4 | 10 |
| 16-25% POVERTY | 2.0 | 0.3 | 0.4 | 0.8 | 3.5 | 2.1 | 0.3 | 0.4 | 0.8 | 3.7 | 1.2 | 0.4 | 0.4 | 0.8 | 2.7 | 3 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 1.53 | 1.62 | 0.29 | 0.55 | 2.01 | 0.80 | 0.21 | 0.43 | 0.49 | 0.64 | 1.23 | 2.75 | 0.16 | 0.70 | 2.19 | |
| SIGNIFICANCE % | 75.08 | 80.09 | 16.57 | 34.61 | 87.41 | 49.81 | 11.35 | 26.18 | 30.26 | 40.56 | 68.83 | 94.62 | 7.84 | 44.01 | 89.69 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.9 | 0.1 | 0.4 | 0.5 | 2.9 | 3.4 | 0.2 | 0.4 | 0.8 | 4.9 | 1.5 | 0.1 | 0.4 | 0.4 | 2.5 | 8 |
| 06-10% POVERTY | 2.0 | 0.1 | 0.7 | 0.8 | 3.6 | 3.6 | 0.1 | 1.1 | 0.9 | 5.7 | 1.6 | 0.1 | 0.6 | 0.8 | 3.1 | 40 |
| 11-15% POVERTY | 2.7 | 0.3 | 0.7 | 0.8 | 4.6 | 3.0 | 0.2 | 0.6 | 0.5 | 4.3 | 2.4 | 0.4 | 0.8 | 1.2 | 4.8 | 22 |
| 16-25% POVERTY | 1.3 | 0.3 | 1.8 | 1.0 | 4.5 | 1.5 | 0.4 | 0.7 | 0.4 | 2.9 | 1.0 | 0.3 | 4.0 | 2.5 | 7.8 | 11 |
| OVER 25% POVERTY | 3.4 | 0.0 | 3.0 | 0.5 | 6.9 | 5.1 | 0.0 | 3.2 | 0.6 | 9.0 | 1.6 | 0.1 | 2.9 | 0.3 | 4.9 | 15 |
| F-RATIO | 0.69 | 1.10 | 1.38 | 1.42 | 0.43 | 0.30 | 1.72 | 1.66 | 1.16 | 0.39 | 0.96 | 1.00 | 0.74 | 1.41 | 0.39 | |
| SIGNIFICANCE % | 39.33 | 63.65 | 75.37 | 76.80 | 21.29 | 12.23 | 84.81 | 83.61 | 66.55 | 18.49 | 56.61 | 58.46 | 43.24 | 76.44 | 18.46 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.7 | 0.2 | 1.3 | 1.8 | 4.9 | 4.8 | 0.3 | 2.5 | 2.6 | 10.3 | 1.0 | 0.1 | 1.0 | 1.6 | 3.8 | 5 |
| 06-10% POVERTY | 1.8 | 0.2 | 1.0 | 1.2 | 4.2 | 4.1 | 0.4 | 1.8 | 1.4 | 7.7 | 1.2 | 0.2 | 0.8 | 1.1 | 3.3 | 59 |
| 11-15% POVERTY | 2.1 | 0.3 | 1.1 | 1.2 | 4.6 | 4.2 | 0.4 | 1.5 | 1.3 | 7.4 | 1.1 | 0.2 | 0.8 | 1.1 | 3.3 | 177 |
| 16-25% POVERTY | 1.9 | 0.3 | 1.7 | 0.9 | 4.8 | 3.0 | 0.4 | 2.3 | 1.1 | 6.8 | 1.1 | 0.2 | 1.2 | 0.8 | 3.3 | 258 |
| OVER 25% POVERTY | 2.5 | 0.2 | 2.5 | 0.7 | 5.8 | 3.4 | 0.3 | 2.7 | 0.8 | 7.1 | 1.2 | 0.1 | 2.2 | 0.5 | 4.1 | 241 |
| F-RATIO | 1.54 | 1.98 | 2.04 | 6.76 | 0.73 | 3.94 | 3.11 | 0.86 | 6.53 | 1.73 | 1.96 | 6.85 | 1.05 | 8.88 | 0.34 | |
| SIGNIFICANCE % | 81.23 | 90.55 | 91.34 | 99.99 | 42.28 | 99.60 | 98.51 | 50.94 | 99.99 | 86.08 | 90.25 | 99.99 | 62.16 | 99.99 | 14.97 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.1 | 0.1 | 1.6 | 3.1 | 5.9 | 1.5 | 0.1 | 1.7 | 3.1 | 6.3 | 1.0 | 0.1 | 1.6 | 3.1 | 5.8 | 14 |
| 06-10% POVERTY | 1.1 | 0.2 | 1.3 | 1.1 | 3.7 | 1.6 | 0.2 | 1.1 | 1.1 | 4.1 | 0.9 | 0.2 | 1.3 | 1.1 | 3.5 | 79 |
| 11-15% POVERTY | 0.9 | 0.2 | 0.7 | 0.9 | 2.7 | 1.2 | 0.3 | 0.8 | 0.9 | 3.2 | 0.7 | 0.2 | 0.7 | 0.8 | 2.5 | 58 |
| 16-25% POVERTY | 1.4 | 0.2 | 0.9 | 0.5 | 3.0 | 1.9 | 0.3 | 1.2 | 0.5 | 3.8 | 0.9 | 0.1 | 0.7 | 0.5 | 2.3 | 48 |
| OVER 25% POVERTY | 1.3 | 0.2 | 1.7 | 0.3 | 3.6 | 1.4 | 0.2 | 1.9 | 0.3 | 3.9 | 0.9 | 0.2 | 0.7 | 0.4 | 2.2 | 23 |
| F-RATIO | 2.67 | 0.58 | 0.85 | 2.74 | 0.92 | 1.80 | 0.96 | 0.29 | 1.40 | 0.69 | 0.84 | 0.70 | 0.35 | 3.57 | 1.24 | |
| SIGNIFICANCE % | 96.76 | 32.21 | 50.36 | 97.06 | 54.63 | 87.22 | 57.00 | 11.88 | 76.67 | 39.82 | 49.45 | 40.55 | 15.54 | 99.21 | 70.75 | |

# Percent Special Education
# Participation by Schooling Completed:
# Summary Information

## Parameter:

Schooling completed is the average number of years of schooling completed by adults in a district. In this report, districts are grouped into two principal categories: those whose adults, on the average, have and have not completed high school. Because there are only two categories, this report is descriptive in nature and no quantitative statistical measures of the significance of trends have been used.

## General Observations:

National Trends: Nationally, there are pronounced differences between special education participation rates in districts whose adults, on the average, have and have not completed high school. The total participation in all aspects of special education falls markedly: districts with less educated adults have children participating at a 5.11% rate while in more educated districts, children participate at just a 3.84% rate. This decrease stems from decreases in Other programs and especially in EMR programs. However, these decreases are partially offset by an increase in Special Disabilities participation. In summary, children in districts with better educated adults are less likely to participate in EMR and Other programs and more likely to be involved in Special Disabilities programs.

Trends for minority and non-minority enrollments are the same as the ones described for the total national enrollment.

Northeast Regional Trends: National trends also hold in the Northeast. Participation in Other programs drops drastically (from 2.26% to .97%) for the total enrollment in this region as districts with higher average adult education are considered.

Midwest Regional Trends: In the Midwest, differences in participation rates are very pronounced between districts whose adults, on the average, have and have not completed high school. These differences follow national differences with two exceptions: there is a decrease, rather than an increase, in non-minority and total participation in Special Disabilities programs. Some of the declines are extreme: non-minority participation in all programs falls from 10.32% for less educated districts to 3.39% for more educated districts; non-minority participation in EMR programs declines from 4.02% to 1.37%; non-minority involvement in Other programs decreases from 2.83% to .65%. The corresponding decreases in minority participation rates are not as sharp.

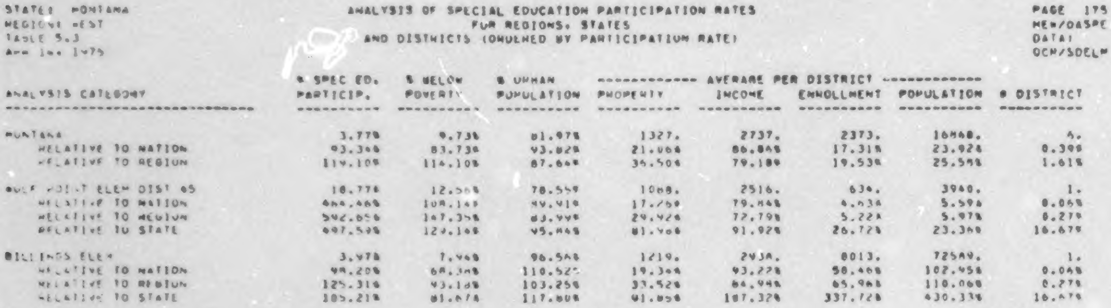
South Regional Trends: National changes in special education rates as more educated districts are considered are echoed in the South. Participation in EMR, Other, and overall special education programs decreases and in Special Disabilities programs increases for districts whose adults, on the average, have completed high school. The sizes of these changes are approximately the same for minority, non-minority, and total enrollment.

West Regional Trends: Many of the apparent trends in the West run counter to national trends. However, the sizes of increases or decreases in the West are usually small and it is probably safe to assume the effect of average adult education upon special education participation in the West has not been differentiated in this analysis. One factor interfering with the analysis is the relatively small number of pupils involved in districts with average adult education level less than four years of high school. These districts contain just 3.6% (159,440 out of 4,333,836 pupils) of the enrollment in this region.

## F. Additional Paths of Analysis

While much of this study's analysis relies upon graphical displays of data, several alternate techniques were used for analysis, with varying degrees of success. Two major approaches entail a comparative and statistical treatment of special education and socio-economic district information. Other approaches include estimating complete regional and national totals and producing diverse special education descriptive reports.

Reports of a comparative nature were carried out at the district, state, regional, and national level. Participation in overall special education and socio-economic characteristics of areas were examined and links between these two factors were searched for. All totals for districts were related to state, regional, and national averages; state figures were related to regional and national averages; and regional rates were related to national rates. A typical entry from this report is the following:



```
STATE: MONTANA                    ANALYSIS OF SPECIAL EDUCATION PARTICIPATION RATES                                   PAGE  175
REGION: WEST                                     FOR REGIONS, STATES                                                  HEW/OASPE
TABLE 5.3                              AND DISTRICTS (ORDERED BY PARTICIPATION RATE)                                  DATA:
APR 16, 1979                                                                                                          OCR/SDELM

                                   % SPEC ED.  % BELOW    % URBAN     ------------ AVERAGE PER DISTRICT ------------
ANALYSIS CATEGORY                  PARTICIP.   POVERTY    POPULATION  PROPERTY   INCOME    ENROLLMENT  POPULATION  # DISTRICT
------------------------------     ----------  ---------- ----------  ---------- ---------- ---------- ----------  ----------

MONTANA                                3.77%      9.73%     81.97%      1327.      2737.      2373.     16868.          6.
    RELATIVE TO NATION                93.36%     83.73%     93.02%     21.06%     86.84%     17.31%     23.92%       0.39%
    RELATIVE TO REGION               119.10%    114.10%     87.66%     36.50%     79.18%     19.53%     25.59%       1.61%

WOLF POINT ELEM DIST 45               18.77%     12.56%     78.55%      1088.      2516.       634.      3940.          1.
    RELATIVE TO NATION               464.46%    108.14%     89.91%     17.26%     79.84%      4.63%      5.59%       0.06%
    RELATIVE TO REGION               592.05%    147.35%     83.99%     29.92%     72.79%      5.22%      5.97%       0.27%
    RELATIVE TO STATE                497.59%    129.14%     95.84%     81.90%     91.92%     26.72%     23.36%      16.67%

BILLINGS ELEM                          3.97%      7.96%     96.58%      1219.      2938.      8013.     72589.          1.
    RELATIVE TO NATION                98.20%     68.36%    110.52%     19.36%     93.22%     58.46%    102.95%       0.06%
    RELATIVE TO REGION               125.31%     93.18%    103.25%     33.52%     84.94%     65.96%    110.06%       0.27%
    RELATIVE TO STATE                105.21%     81.87%    117.80%     91.85%    107.32%    337.72%    430.33%      16.67%
```

Reports of this nature are discussed more thoroughly in Section VII.C and in Report 4 of Appendix B. These reports are very useful for quickly determining an area's relative socio-economic character and its affect on special education participation.

In this project, three statistical techniques - analysis of variance, the F Ratio, and Deviation Analysis - are relied upon to provide confirmation that apparent trends are meaningful. However, in the course of this analysis, an additional statistical tool was used to point to possible relationships between special education participation and socio-economic conditions.

Correlation coefficients determine the degree to which one variable depends linearly upon another. In this study, a correlation coefficient could indicate, for example, that a district's participation in other programs depends upon its per capita income. However, a drawback of correlation coefficients is that they are sensitive to variance in the variables involved. District participation in special education involve high variance trends and most attempts to express the impact of a particular socio-economic characteristic upon special education participation through correlation coefficients did not produce useful statistical results.

Nonetheless, correlation coefficients were calculated for many factors which could conceivably affect special education participation. While these coefficients could not be used as a statistical basis for conclusions reached about trends in special education participation, they did point to relationships between factors which warranted further analysis. A more detailed discussion of correlation coefficients may be found later in the report. In Section VII.D, the theory behind correlation coefficients is discussed. In Report 6.2 of Appendix B, the correlation coefficients which have been calculated in the course of this project are described and interpreted.

Another facet of this analysis involved estimating regional and national total from the sampling of districts covered by the OCR 1973 survey. Using a projection technique (described in Projection Technique, Section VII. D), reports have been generated which contain approximate figures for the total enrollment in all aspects of special education on the regional and national level.

The motivation for this approach is as follows: we wished to determine whether conclusions based upon an analysis of OCR 1973 surveyed districts would apply to all districts throughout the nation. Projected participation rates were consistent with those calculated for districts surveyed, and ensuing analysis was completed using just those districts included in the OCR 1973 Survey. It should be noted, though, that the 1973 Survey holds information on almost one-half of our nation's school age population so the fact that actual and projected rates are consistent is not surprising.

The Projection Technique is discussed in Section VII.D. Descriptions of reports utilizing projected data may be found in Appendix B, Reports 2.1 and 2.2.

Several reports were generated which focused on just one aspect of special education. Areas examined included Bilingual Instruction, Special School enrollments, Special School pupils receiving free public transportation, children residing in a district but not attending school in that district, and children attending school in a district but residing elsewhere. Descriptions of these reports may be found in Appendix B, Reports 5.1 through 5.6.

Besides presenting trend analysis with the graphical format of Section III, an alternate format was used as an auxiliary to analysis. These graphs depict total special education participation, average district enrollment in special education programs, and percentage minority composition in special education as a socio-economic parameter varies. These reports are useful in relating the size and racial distribution in district special education programs to the overall rate of participation in these programs. A more detailed explanation of these graphs may be found in Section VII.C. Actual graphs focusing on the impact of several key socio-economic factors upon national special education programs are included in the second section of Appendix A.

The thrust behind our approach to analysis is discussed in greater detail in Section VII, Technical Approach to Analysis.

# V. POLICY IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

Our analysis shows that three general factors create differences in rates of pupil participation in all aspects of special education. First, significant variation exists in special education among the four regions of the country. Second, we find that a pupil's racial ethnic background has a strong affect on his likelihood of being placed in special education programs. In particular, minority children are involved in special education at a much higher rate than non-minority children. Finally, school district socio-economic conditions have considerable impact on the rates at which pupils take part in special education. Specifically, as a district becomes poorer, smaller, less urban, and blacker, its students tend to participate in special education at higher rates.

There is little doubt that these findings pertain generally to all districts in the nation, not just those included in our survey sample. First of all, information utilized in this study involves almost half of the public school pupils in the nation, an extensive number. Furthermore, projection techniques have been developed to estimate national rates; and these projected national rates are consistent with the rates of the districts surveyed.

It is our belief that the results of this study are incompatible with a number of traditional images of special education and its role in education, and a vigorous examination of the entire field is in order. While these findings may be viewed by some critics of special education as conclusive, only further research will enable educators and others to determine whether special education programming as currently conceived provides adequate or appropriate education to all children receiving services. Further exploration of the effects of regional, racial, and socio-economic factors on special education participation is requisite. Some general directions for further research are provided below, but it is clear that until a more complete understanding of the actual state of educational programming for the handicapped can be reached, new initiatives for increasing participation in these programs should be approached with extreme caution.

The extent of special education services in the states has historically been determined through state estimates of local public and private special education participation. With the collection of OCR public school survey data on education programs for the handicapped, an important new source of information has become available. Statistics concerning not only participation rates, but geographic and racial differences in participation are accessible. Furthermore, socio-economic characteristics of districts may be gathered from Census data and analyzed in relation to participation rates. This study is only the initial step in exploring the complex patterns of service in special education. Drastic changes in Federal action in this area should probably await the results of further research refining the results of this study.

A number of additional and valuable tasks can be proposed for research in this area. Clearly, the existing data file could be expanded to include a more detailed socio-economic description of school districts. The end result of this task would result in a clearer understanding of the relation of a district's special education participation to its social and economic environment.

We feel that two field studies, one determining the accuracy of reported data and another examining the correlation between a child's placement in special education and his actual handicapping condition, would be immensely valuable in interpreting the data. A first study, which would attempt to validate the reported information from the OCR survey, should aim to clarify identification labels of children placed in Special Disabilities and Other programs. The results of this study will be of value in revising the OCR survey instrument.

A second study, which would attempt to verify that children placed in special education have been correctly diagnosed, would unavoidably be subject to varying state criteria for defining eligibility in special education programs. Nevertheless, a study of this nature would be extremely valuable in resolving the following question: to what extent are some students improperly classified as special education pupils, an action which segregates them from the mainstream education system.

Other areas of special education also require further study, particularly private and state-supported programs not covered by the OCR survey. Another important aspect in need of further examination centers on information which determines the percentage of the nation's school children excluded from school because of physical or mental handicaps (similar to work done by the Children's Defense Fund in their study of Children Out of School in America). These and other studies currently under consideration by the Department of Health, Education and Welfare should increase the ability of special education planners at the Federal, state, and local levels to effectively target their resources and afford handicapped children with access to equal educational opportunity.

# VI. ANALYSIS DATA SOURCES

## A. Introduction and Overview

There are several major data sources which have been drawn upon during this project. Because the different sources have been collected at different times, with varying coverage and survey methodologies, it is necessary to understand the role played by each data source. As frequently happens, the substantive areas of interest for this project cut across collection and monitoring procedures; therefore, we have utilized several files, merging them into composite files which lend themselves to analysis.

In this section, we discuss the history and content of the individual files contributing to the study. Characteristics of composite files are described, particularly in regard to coverage of our nation's school-age population. Finally, illustrative types of reports which have been prepared using this analysis data are presented.

## B. Individual Component Files

Project analysis tasks use information extracted from a number of data sources including the 1973 OCR Civil Rights Survey, SDDT Census files, ELSEGIS financial and staffing files, and Equalized Property Value data.

1973 OCR Survey. A primary source of the data analyzed in this report is the 1973 OCR Survey, which covers all schools in 2,908 school districts in 46 states and the District of Columbia. This survey contains information relevant to the study, especially special education enrollment tabulations for the 38,977 schools covered. These statistics are provided for five racial ethnic backgrounds: American Indian, Spanish Surnamed, Black, Asian American, and non-minority enrollments as well as for total school enrollments. For each of these racial ethnic backgrounds, special education enrollment statistics are provided for four aspects of special education: EMR, TMR, Other, and Special Disability programs, as well as for total special education enrollment.

It is important to recognize that the 1973 survey is not a statistical sample. Therefore, precise state, regional, or national estimates cannot be projected from this data using standard statistical techniques. The totals may be estimated using a projection technique (described in Section VII.D) which takes into account the nature of the 1973 Survey.

OCR school districts are identified by their 2 digit OE state and five digit district codes. Individual schools are further identified by their five digit OE school codes.

SDDT File. The 1970 SDDT (School District Data Tapes) file is a recompilation of selected tables from the 1970 Census Fourth Count Population Count, providing demographic information for each school district in the country with 300 or more students. Tabulations of the SDDT file valuable to this project include socio-economic factors such as urban population count, aggregate family income, and income of families below the poverty level.

In all, the SDDT file contains information for more than 12,000 districts. The file organization is by district within state; each state is stored separately as an individual data file. Districts are identified by two codes, the 2 digit FIPS state code and the 5 digit district code. This identification parallels that used to identify districts on the 1973 OCR Survey file, and a one-to-one correspondence between identification codes can be drawn. This correspondence provides a way of identifying those districts common to both files.

ELSEGIS File. ELSEGIS III information (staffing data for 1970-71, financial data for 1969-70) forms the basis of the ELSEGIS File (Elementary and Secondary General Information Survey). Information contained in this file which is referenced by this study involves financial data for districts.

The ELSEGIS file covers approximately 5,000 districts, with one file record for each district. Districts are identified by the two digit FIPS state code and five digit OE district code.

Equalized Property Data. In 1974, the National Planning Association, funded by OASPE (HEW), began collecting state equalized property values for districts covered by the 1970 ELSEGIS survey (data for approximately 45 states was collected in time for the current analysis). This project uses the Equalized Property File to provide per capita property values for districts examined.

SDELM File. The HEW produced SDELM File contains demographic, financial, staffing and property value information merged together from the SDDT, ELSEGIS, and Equalized Property data sources. Information is provided for 4,714 districts, each of which is identified by the two digit FIPS state code, and the five digit OE district code.

## C. Composite OCR/SDELM File

The Composite OCR/SDELM File, the project's primary analysis data source, contains information extracted from the following three data files:

- OCR - 1973 OCR Survey covering 2,908 districts
- SDDT - Census File covering 12,000 districts
- ELSEGIS - ELSEGIS file covering 5,000 districts

The latter two files have been previously merged for HEW, creating the SDELM (SDDT and ELSEGIS Merged) file which plays an important role in our analysis. Almost all districts in the ELSEGIS file are included in the SDDT file, since SDDT covers all districts with enrollment greater than 300. Furthermore, any districts which are not contained in both files are guaranteed to be small (less than 300 pupils).

The SDELM file contains information for more than 4,700 districts, describing socio-economic, financial, and staffing characteristics of school districts. In creating the composite OCR/SDELM file, three primary tasks were performed:

- OCR school tables were accumulated to the district level of detail in order to produce a 1973 OCR District File
- The SDELM file was converted to the more usable storage format of the OCR file
- The 1973 OCR district file and the SDELM file were merged, using the OE state and district codes as a common file key. (A complete discussion of the merging procedure may be found in Section VII).

The final result, called the OCR/SDELM file, contains a plethora of information for its 1,542 school districts, including:

- Total enrollment by ethnicity
- Special education enrollment by program and ethnicity
- Socio-economic characteristics (i.e., per capita income)
- Property value
- School financial and staffing data

A possible inconsistency in the composite file stems from the different collection dates of data drawn from the contributing files. OCR data was collected in 1973; the SDELM file is based on 1970 census information. However, the SDELM file contains demographic and socio-economic information about school districts. Characteristics of this nature normally change slowly. Therefore, no dramatic shifts in district socio-economic status is expected to occur in the three-year period between the 1970 census and the 1973 OCR survey. In addition, 1970 was the latest census available for the study.

## D. Coverage of the Composite File

After merging together the SDELM file and the OCR file to create the composite OCR/SDELM file, one concern surfaced: does information in the composite file cover a significant percent of the nation's school-age population or has considerable information been lost during the merging process? The following table summarizes the district coverage of the OCR, SDELM, and OCR/SDELM files:

| | OCR | SDELM |
|---|---|---|
| Total Districts Covered | 2,908 | 4,714 |
| Districts on Both (OCR/SDELM) | 1,542 | 1,542 |
| Districts on Only One | 1,366 | 3,172 |

During the merging process, about one-half of the OCR districts and one-third of the SDELM districts contribute to the composite file. From this district data, however, it is difficult to estimate the extent of the coverage provided by the OCR and OCR/SDELM file. The table presented below concentrates on enrollment coverage, as well as district and school coverage. Figures are given for the nation and the four regions:

| | -OCR- | | | | -OCR/SDELM- | | | |
|---|---|---|---|---|---|---|---|---|
| Region | Districts | Schools | Enrollment | % of Total | Districts | Schools | Enrollment | % of Total |
| Northeast | 237 | 4,577 | 3,233,807 | 34.5 | 139 | 4,120 | 2,182,499 | 31.3 |
| Midwest | 295 | 6,244 | 3,799,136 | 29.8 | 202 | 5,571 | 3,474,715 | 27.2 |
| South | 1,772 | 20,093 | 11,932,880 | 82.4 | 828 | 16,147 | 10,149,335 | 70.0 |
| West | 604 | 8,063 | 5,018,898 | 62.7 | 373 | 7,042 | 4,531,143 | 56.6 |
| Nation | 2,908 | 38,977 | 23,976,384 | 53.8 | 1,542 | 32,880 | 21,135.152 | 47.3 |

In this table, the extensive coverage of the OCR 1973 Survey and of the OCR/SDELM file becomes apparent. In the nation, the OCR Survey holds information for 53.8% of all students in the nation. These students represent the enrollments of 38,977 schools in 2,908 districts. Just as striking is the coverage of the OCR/SDELM file. Although almost 1/2 of the OCR file's districts are excluded from the OCR/SDELM file, these districts contain just 6% of the nation's pupils. The OCR/SDELM file essential to the thrust of project analysis, contains socio-economic and special education information for almost half of all students in the country.

The relevance of the coverage of the OCR/SDELM file to this project is as follows: often, conclusions about the nation's behavior may be reached with data involving just a small fraction of the nation's population (i.e., television polls, political polls, etc.); this study's conclusions are reached only after carefully analyzing data which covers 47.3% of the nation's school-age population. A study utilizing information which is this comprehensive in extent is on a firm foundation for drawing conclusions about special education participation.

States comprising the four geographic regions are listed as follows:

NORTHEAST

- Connecticut
- Maine
- Massachusetts
- New Hampshire
- New Jersey
- New York
- Pennsylvania
- Rhode Island
- Vermont

MIDWEST

- Illinois
- Indiana
- Iowa
- Kansas
- Michigan
- Minnesota
- Missouri
- Nebraska
- North Dakota
- Ohio
- South Dakota
- Wisconsin

SOUTH

- Alabama
- Arkansas
- Delaware
- District of Columbia
- Florida
- Georgia
- Kentucky
- Louisiana
- Maryland
- Mississippi
- North Carolina
- Oklahoma
- South Carolina
- Tennessee
- Texas
- Virginia
- West Virginia

WEST

- Alaska
- Arizona
- California
- Colorado
- Hawaii
- Idaho
- Montana
- Nevada
- New Mexico
- Oregon
- Utah
- Washington
- Wyoming

The extent of the coverage of regions shows some variation. OCR information concerning over 82% of the South's total enrollment has been collected. Coverage in other regions, while not as spectacular as coverage in the South, is solid. In the Northeast, 34.5% of the students are covered, in the Midwest 29.8%, and in the West 62.7%. Furthermore, very little coverage is sacrificed in the OCR/SDELM file. Again, the essential point is that conclusions reached about special education participation in the regions are not based on information from a handful of districts. Participation rates are known for 27.2% of the midwest's enrollment, 31.8% of the Northeast's enrollment, 56.6% of the West's enrollment, and 70% of the South's enrollment. Important findings of this project are significant, since they pertain to sizable enrollment percentages. However, the data for districts in the OCR and OCR/SDELM files can also be used to project regional and national totals. These estimated regional and national figures (which include special education participation rates) suggest that conclusions, based upon the districts surveyed, hold for all districts.

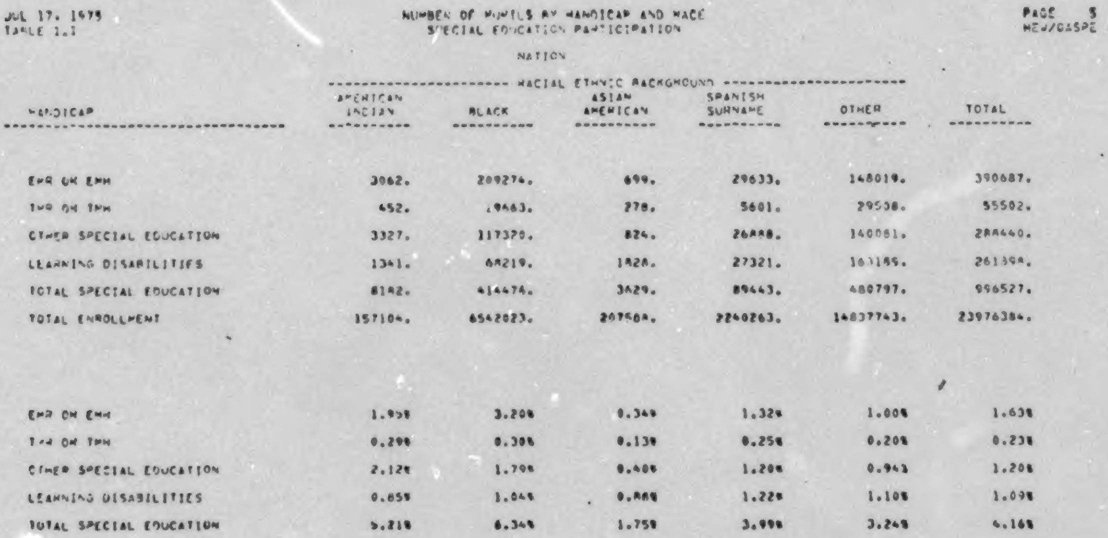
The technique used to take data from the districts surveyed and project regional and national totals is explained in Section VII, Technical Approach. Basically, the probability that a district is placed into the OCR or OCR/SDELM survey is estimated. From this probability, a weight can be assigned to the district and used to compile regional totals. For example, if there is just one chance in three that a district would be surveyed in 1973 by OCR, its weight assigned is three. When totals are estimated, this district is counted three times - once for itself and twice for districts like it which were passed over when the survey was taken.

The 1973 OCR Survey presents additional problems due to its selection process. Although all "even" year OCR surveys (1968, 70, etc.) took statistical samples of districts, surveys in "odd" years (1971, 73, etc.) did not. For example, all districts with large enrollments, large minority enrollments, and involvement in litigation were automatically included in the 1973 survey. The 1972 survey, which is a statistical random sample, can be used to estimate weights for the districts in the 1973 OCR file. The method used in accomplishing this end is described in the Technical Approach (Section VII). The following table indicates the consistency of the data regardless of the file used (OCR unweighted, OCR/SDELM unweighted, OCR weighted, or OCR/SDELM weighted):

| | Special Education Participation | | | | |
|---|---|---|---|---|---|
| | EMR | TMR | Other | Sp. Dis. | Total |
| OCR | 1.63% | .23% | 1.20% | 1.09% | 4.16% |
| OCR/SDELM | 1.59% | .24% | 1.12% | 1.09% | 4.04% |
| OCR Projections | 1.51% | .20% | 1.19% | 1.06% | 3.96% |
| OCR/SDELM Projections | 1.45% | .20% | 1.35% | 1.00% | 4.00% |

Participation rates in all aspects of special education do not vary much from data source to data source. In particular, national participation in special education occurs at about a 4% rate for all four files. The uniform nature of these statistics indicate that rates which are observed in districts on the OCR/SDELM file will be very similar to rates for all districts in the nation. Conclusions based upon an analysis of the OCR/SDELM data can be safely generalized to the entire nation.

Sample National Summary Table. We present here an example of the type of information available from our analysis data sources:



```
JUL 17, 1975                        NUMBER OF PUPILS BY HANDICAP AND RACE                           PAGE    5
TABLE 1.1                              SPECIAL EDUCATION PARTICIPATION                              HEW/OASPE

                                                    NATION

                                   --------------------- RACIAL ETHNIC BACKGROUND ---------------------
                                    AMERICAN                ASIAN      SPANISH
   HANDICAP                          INDIAN      BLACK     AMERICAN    SURNAME       OTHER        TOTAL
----------------------------       ----------  ----------  ----------  ----------  ----------  ----------


   EMR OR EMH                          3062.     209274.        699.      29633.     148019.     390687.
   TMR OR TMH                           452.      19663.        278.       5601.      29538.      55502.
   OTHER SPECIAL EDUCATION             3327.     117370.        824.      26888.     140081.     288440.
   LEARNING DISABILITIES               1341.      68219.       1828.      27321.     163185.     261398.
   TOTAL SPECIAL EDUCATION             8182.     414476.       3629.      89443.     480797.     996527.
   TOTAL ENROLLMENT                  157104.    6542023.     207508.    2240263.   14837743.   23976384.



   EMR OR EMH                          1.95%       3.20%       0.34%       1.32%       1.00%       1.63%
   TMR OR TMH                          0.29%       0.30%       0.13%       0.25%       0.20%       0.23%
   OTHER SPECIAL EDUCATION             2.12%       1.79%       0.40%       1.20%       0.94%       1.20%
   LEARNING DISABILITIES               0.85%       1.04%       0.88%       1.22%       1.10%       1.09%
   TOTAL SPECIAL EDUCATION             5.21%       6.34%       1.75%       3.99%       3.24%       4.16%
```

These statistics are compiled from information on districts surveyed in 1973 by OCR. As with many of the tables generated during this project, the available information involves all aspects of special education and all major ethnicities. The information found in this table is available for the 2,908 districts on the OCR file. Districts on the OCR/SDELM file have available additional demographic, staffing, and financial information, including:

- per capita income
- percentage of population below poverty
- percent urbanization
- school system's total revenue and total Federal revenue
- state government's contribution to revenue
- Title I awards contribution to revenue
- per pupil expenditure
- state Equalized Property Value
- weights which are used to project regional and national figures

# VII. TECHNICAL APPROACH TO ANALYSIS

## A. Introduction and Overview

Section VI, Analysis Data Sources, discusses the structure, content, strengths, and limitations of data files used in this analysis of 1973 participation of children in special education school programs. The current section discusses our approach to utilizing available data to provide a systematic framework for meaningful analysis. The section is divided into the four discussion areas of Variable Selection and File Creation, Description Analysis, Statistical Analysis, and Local Service Distribution Analysis.

Variable Selection and File Creation discusses data file elements required for analysis and creation of a composite data base containing these elements. The OCR file is used primarily for its tabulations of school children by special education program and racial ethnic background. Data is collected for individual schools (over 37,000 schools), and is accumulated to the school district level of detail (over 2,500 school districts). Types of special education programs covered are:

- EMR (Educable Mentally Retarded) often included children with below 80 IQ
- TMR (Trainable Mentally Retarded) often includes children with below 50 IQ
- Special Disabilities includes such physical handicaps as blindness, deafness, orthopedic handicaps, and specific learning disabilities
- Other includes severely emotionally disturbed children, slow learners, etc.
- Total is the sum of the above 4 categories

Racial ethnic backgrounds covered are:

- American Indian
- Black
- Spanish Surname
- Asian American
- Non-Minority (Other)
- Total Enrollment

It should thus be noted that a total of thirty special education/racial ethnic background combinations are present for each school district (i.e., five handicapping conditions by six racial ethnic backgrounds).

These tabulations are used to compute the key analysis dependent variable of special education participation (defined as the number of children in a special education program divided by the number of children in the district). For example, if a district has 100 Spanish Surnamed children, 5 of whom are enrolled in EMR programs, then these Spanish Surnamed children have a 5% EMR participation rate.

Ten data file elements were analyzed to determine their impact (if any) on special education participation. The first two elements are contained on the OCR file; the remaining eight elements are on the SDELM file, as follows:

- District Enrollment
- Percent Minority
- Percent Below Poverty Level
- Per Capita Income
- Percent Urban Population
- State Revenues as a Percent of Total District Revenues
- Title I Revenues as a Percent of Total District Federal Revenues
- Per Pupil Expenditures as a Percent of Per Capita Income
- Per Capita Property Value
- Education Level

Descriptive Analysis encompasses all techniques used to display data in formats needed for a meaningful analysis of the impact of selected factors on special education participation. All such analysis takes into account the following three points:

- Special education is not a monolithic program. Different types of programs address different needs, are composed of children with different requirements and should thus be analyzed separately.

- As special education programs consist of children from different racial ethnic backgrounds, it is important to analyze the impact (if any) of these different backgrounds on special education participation.
- It is important to examine geographic regional differences in special education participation.

Descriptive analysis is presented using two generic types of reports:

- Graphs depict the impact of selected socio-economic variables (such as per capita income) upon special education participation (e.g., as district per capita income increases, is there any trend for special education participation?). Such graphs have been produced for the socio-economic variables previously discussed; for Minority, Non-minority and Total district population; for the five categories of special education; and for the nation and four geographic regions.
- Tabular Reports have been produced to support a number of analysis requirements:
    - -- Such tabulatuions provide numerical backup for all analysis graphs
    - -- Concise tabular reports provide trend analysis in areas not easily depicted by graphical representation
    - -- Numerical reports provide for detailed examination of the characteristics of individual school districts and states
    - -- Statistical reports measure the significance of observed trends
    - -- Projection reports estimate regional and national trends

Statistical Analysis encompasses those techniques used to estimate the relevance of observed trends. For example, under certain conditions, an increase in special education participation from 4% to 6% is meaningful. Under other conditions, the increase is not significant. Several techniques have been used to test for the statistical significance of observed trends:

- Analysis of Variance tests the hypothesis that observed trends are not significant (through use of the statistical F-Ratio test)
- Deviation Measurement tests the hypothesis that racial ethnic background is not a factor in special education participation (through measurement of population standard deviations and relative special education participation rates)

- Regression Analysis provides a statistical measure of the impact of socio-economic factors on special education participation (using correlation coefficients and multiple regression techniques)
- Projection Evaluation provides a means for comparing projected analysis figures with known national and regional information and confirms that observed trends for the enrollments sampled are representative of national trends.

Local Service Distribution Analysis examines the distribution of local special education services. In our analysis of the impact of socio-economic variables on special education participation, an implicit assumption has been that most children attending special education programs live in the school district providing the programs. However, this might not always be the case. For example, the hypothetical conclusion that high income districts have high special education participation might, in reality, be attributable to superior special education facilities which attract students from surrounding, lower income districts (through jointly financed cooperative arrangements for providing centralized special education services).

An analysis of the distribution of local special education programs was undertaken to examine the prevalence of such clustering of special education services.

## B. Variable Selection and File Creation

### 1. Composite OCR/SDELM File Creation

Required analysis information is contained on two computer data files, the content, structure, and coverage of which are discussed in Section VI, Analysis Data Sources. In brief, the 1973 OCR file contains required special education participation information while the HEW SDELM file contains important socio-economic and school financial data. A third, subsidiary, computer file contains OCR sampling weights used to estimate national trends based on the sample OCR information.

Figure VII.B.1, Creation of Composite OCR/SDELM File, illustrates the procedures used to form a composite analysis file discussed as follows.

Creation of District Summary File. The OCR Individual School File contains special education data collected for over 37,000 schools. For purposes of the current analysis, school level data was accumulated to the district level of detail for the 2,908 school districts covered by the 1973 OCR survey file.

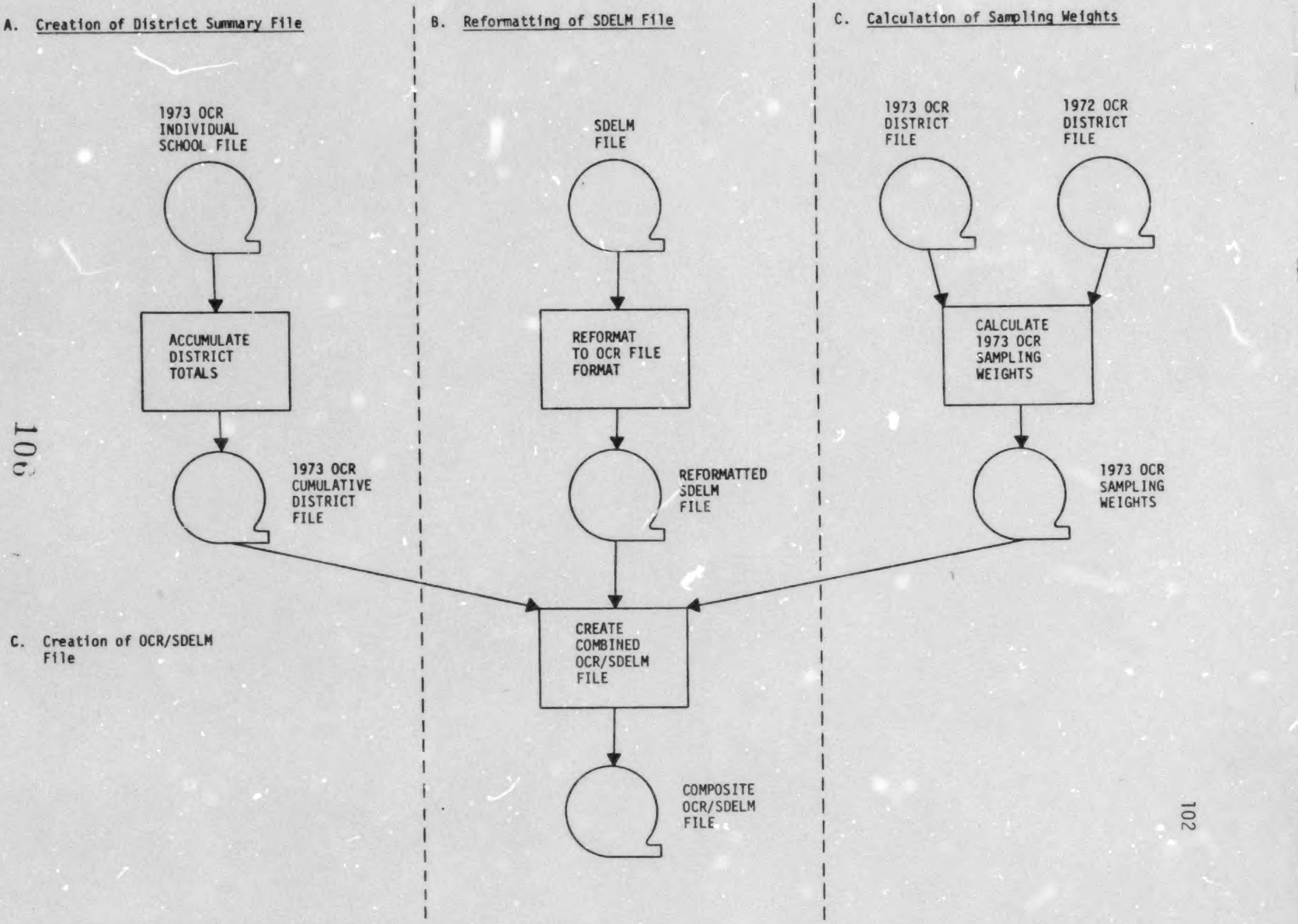
Reformatting of the SDELM File. The SDELM file contains school district socio-economic data extracted from 1970 Census files, school district financial data collected from 1970 ELSEGIS school survey files, and school district staffing information extracted from 1971 ELSEGIS school survey files. As an initial step toward composite file creation, the SDELM file was converted to a format compatible with the 1973 OCR file. This was accomplished for several reasons:

- The final version of the composite OCR/SDELM file is in OCR compatible file format
- The SDELM file has been modified by a number of users, each of whom has added his own personal touches to file structure. The current format of the file is, thus, not consistent which leads to difficulties in using the file.

Calculation of Sampling Weights. Statistical sampling weights are required for estimating national trends and totals based on collected sample data. Although the 1970 OCR file covers over 50% of all elementary and secondary public school enrollment, the file was not created as a strict statistical sample, and thus does not have natural sampling weights assigned to individual school districts. However, estimated sampling weights were developed to accomplish the following tasks:

- To estimate regional and national special education participation
- To help demonstrate that the OCR file is representative of the nation as a whole for special education participation (i.e., that participation rates are essentially the same either using or not using the sampling weights)

FIGURE VII.B.1. CREATION OF COMPOSITE OCR/SDELM FILE


A. Creation of District Summary File
B. Reformatting of SDELM File
C. Calculation of Sampling Weights
1973 OCR INDIVIDUAL SCHOOL FILE
ACCUMULATE DISTRICT TOTALS
1973 OCR CUMULATIVE DISTRICT FILE
SDELM FILE
REFORMAT TO OCR FILE FORMAT
REFORMATTED SDELM FILE
1973 OCR DISTRICT FILE
1972 OCR DISTRICT FILE
CALCULATE 1973 OCR SAMPLING WEIGHTS
1973 OCR SAMPLING WEIGHTS
C. Creation of OCR/SDELM File
CREATE COMBINED OCR/SDELM FILE
COMPOSITE OCR/SDELM FILE

The method for creating OCR sampling weights is discussed in subsection VII.D, Statistical Analysis.

Creation of Composite OCR/SDELM File. The composite OCR/SDELM File, the primary data source for the current analysis, was created by merging together individual district information from the OCR, SDELM, and Sample Weight files. The common information of two digit state number and five digit OE school district code provided the necessary link between the districts on the three files. (The 2 digit FIPS state code on the SDELM file was easily converted to the 2 digit OE state code used by the OCR and Sample Weight files.)

Three types of district information records resulted from this merge:

- Records containing both OCR and SDELM information (district is on both OCR and SDELM files)
- Records containing OCR but not SDELM information (district is on OCR but not SDELM file)
- Records containing SDELM but not OCR information (district is on SDELM but not OCR file)

In accomplishing the merge, twenty-two pairs of districts were merged together even though the pair members had slightly different OE district codes. This was allowed because the pair members had identical district names, state codes, county names, and very similar enrollments. Conversely, it was verified that no merged districts had dissimilar district or county names.

Storage of sampling weights on the file enables production of both weighted and unweighted analysis reports.

As complete analysis can be performed only on district records containing both OCR special education information and SDELM socio-economic information, it is important that the OCR/SDELM file contain a representative number of such records. In fact, the 1,542 OCR/SDELM file districts with both OCR and SDELM information account for almost one half the entire public elementary and secondary school enrollment in the country. A detailed discussion of OCR/SDELM file coverage is contained in Section VI, Analysis Data Sources.

A directory of the definitions of all file elements was produced under separate cover.

## 2. Variable Selection

All special education analysis information is contained on the OCR portion for each district of the composite OCR/SDELM file. It is important to note that this special education data (for 1,542 districts) was collected for over 37,000 individual schools, and then accumulated to the school district level of detail. Special education enrollment counts are maintained for five types of special education programs and six racial ethnic backgrounds (i.e., 30 special education/racial ethnic background combinations). It is important to examine trends for each of the five special education program types because they are composed of students with different needs and characteristics. The five special education programs, as defined by the 1973 OCR survey, are listed as follows:

a. EMR (Educable Mentally Retarded) special education programs include moderately retarded children (e.g., IQ of approximately 80). While EMR is a concept understood by most school districts, potential classification ambiguities do arise from subjective judgements used to identify children requiring EMR programs (as opposed to non-retarded slow learners, etc.).

b. TMR (Trainable Mentally Retarded) special education programs include children with more pronounced mental retardation (e.g., IQ of less than 50). TMR is a widely understood concept with fewer classification problems than EMR.

c. Special Disabilities programs consists of children with physical handicaps including blindness, deafness, speech impairment, orthopedic handicaps, and specific learning disabilities.

d. Other Special Education, as defined by the OCR survey, encompasses a range of special education programs for slow learners, the severely emotionally disturbed, the socially maladjusted, etc. This category is most open to alternative interpretation and pupil classification by different school districts.

e. Total Special Education encompasses the sum of all pupils attending the four programs previously discussed.

The OCR survey collects special education counts for the following six racial ethnic backgrounds (for each of the five special education programs discussed):

| | | |
|---|---|---|
| a. | American Indian | Minority |
| b. | Black | |
| c. | Asian American | |
| d. | Spanish Surname | |
| e. | Other | - Non-Minority |
| f. | Total | - Sum of a through e |

Racial ethnic background analysis is presented both in terms of the six individual backgrounds, and in terms of Minority, Non-minority, and Total groupings.

While special education enrollment tabulations provide useful analysis information, such counts do not constitute primary analysis dependent variables because they scale too closely with individual district size (i.e., the larger school districts will, quite naturally, have the large special education enrollments). The primary analysis dependent variable chosen was special education participation (defined as the portion of children in a district attending special education programs). For example, if out of a district enrollment of 10,000 children, 1,000 children attend special education programs, then the district has a 10% special education participation rate. Such rates can be calculated for each of the thirty special education/racial ethnic background combinations. For example, if out of a district Asian American enrollment of 1,000 children, twenty Asian American children attend EMR special education programs, then Asian Americans in the district have a 2% EMR special education participation rate.

In analyzing special education participation, particular attention was paid to geographic, racial ethnic background, and socio-economic factors. Geographic analysis of special education participation is accomplished for selected districts and states, for four geographic regions, and for the nation. The states comprising each of the four regions (Northeast, Midwest, South, West) are listed in Section VI, Analysis Data Sources. Racial ethnic analysis of special education participation is accomplished through examination of the six racial ethnic backgrounds previously discussed, and of the broader categories of minority and non-minority participation. Analysis was also performed on the impact of the following socio-economic variables upon special education participation:

a. Enrollment. As school district enrollment increases do such factors as potentially larger finances and more extensive facilities affect special education participation?

b. % Minority is defined as minority student district enrollment divided by total district enrollment. Does district racial ethnic makeup have an impact on special education participation or distribution of services?

c. Per Capita Income is defined as total district income divided by total district population. It serves as one measure of district wealth.

d. % Poverty is defined as the number of people below the poverty line divided by total district population. It serves as another measure of district wealth.

e. % Urban is defined as district urban population divided by total district population. It is a measure of district demographic characteristics.

f. % State Revenue is defined as state revenues supplied district education divided by total district education revenues. It serves as a rough measure of state involvement in education.

g. % Title I Revenues is defined as ESEA Title I revenues received by the district divided by total Federal revenues received by the district. It is a rough measure of revenues received for economically and educationally deprived pupils.

h. % Burden is defined as per pupil expenditures divided by per capita income. It represents a measure of the portion of district wealth committed to education.

i. Per Capita Property Value is defined as total district property value divided by total district population. It measures potential tax base for district education financing.

j. Education Level is a rough estimate of average schooling completed by a district's adults.

Analysis is accomplished for these socio-economic variables, for the five categories of special education, for six racial ethnic backgrounds, for the four geographic regions, and for the nation as a whole. Moreover, analysis of combinations of socio-economic factors is performed, as well as an examination of the distribution of special education services.

The Major Findings Section of the report concentrates on analysis of the first five socio-economic factors because associated trends and definitions are most clear for these variables. The remaining five factors are discussed in the Additional Findings Section.

## C. Descriptive Analysis

### 1. Introduction

The complex interaction between districts' socio-economic conditions and their participation rates in various aspects of Special Education for students of different ethnic backgrounds makes detecting meaningful trends a vexatious task. However, once trends are unearthed, presenting them in a clear, easily understood, and efficient format is imperative. Information which has been discovered but which cannot be conveyed is, for the purposes of this study, worthless. Therefore, this report employs whichever techniques are requisite to effectively display analysis findings.

### 2. Graphs

This study's results are demonstrated through two principal techniques: graphical and tabular. Much of the analysis of this study relies upon graphical depictions of trends in Special Education participation. The format chosen for these graphs reflects a desire to examine the following factors:

- Participation in four areas of Special Education - EMR or EMH, TMR or TMH, Special Disabilities, and Other programs - as well as participation in the overall Special Education. Each of these four aspects of Special Education differ in their nature; therefore, pupils' participations in each program have disparate sensitivites to such factors as social and economic conditions of the area, ethnic backgrounds of pupils, and the geographic local of the area
- Ethnic background of the pupil. The course of this study evinces fundamental differences in Special Education participation rates for students of different ethnicities
- Geographic location of the school district. Regional differences arise in Special Education participation rates. Important factors which highlight these Regional differences are the ethnic backgrounds of students and the socio-economic surroundings
- The social and economic characteristics of districts. For example, districts with 0-5% of their population living in poverty may have fundamentally different Special Education participation patterns than districts with over 25% of their population in poverty.

Considering these factors leads to the following format for the graphs of this report: Participation rates in all aspects of special education are plotted as a socio-economic characteristic of districts varies. This type of graph is produced for minority, non-minority, and total enrollments (three graphs on one page). Also, separate pages are devoted to National and Regional participation. An example of a graphical data display appears on the following page. The information embodied by these graphs can be unravelled with the following steps:

1) Each graph (left, middle, and right) has five curves, labelled with G, O, E, S, T. These initials correspond to Special Education participation in the following way:
    - G is the participation rate in all Special Education programs
    - O is the participation rate in Other programs
    - E is the participation rate in EMR or EMH
    - S is the participation rate in Special Disabilities programs
    - T is the participation rate in TMR or TMH

2) These three graphs look at participation rates for minority, non-minority and total enrollments in the South. On the left, rates are given for the total enrollment in this region; a rate of 6% for G (point I) means 6 out of every 100 students in the South participate in special education. In the middle, rates refer just to minority participation; a rate of 9% means 9 out of every 100 minority students in the South take part in special education. Similarly, the graph on the right corresponds to non-minority participation.

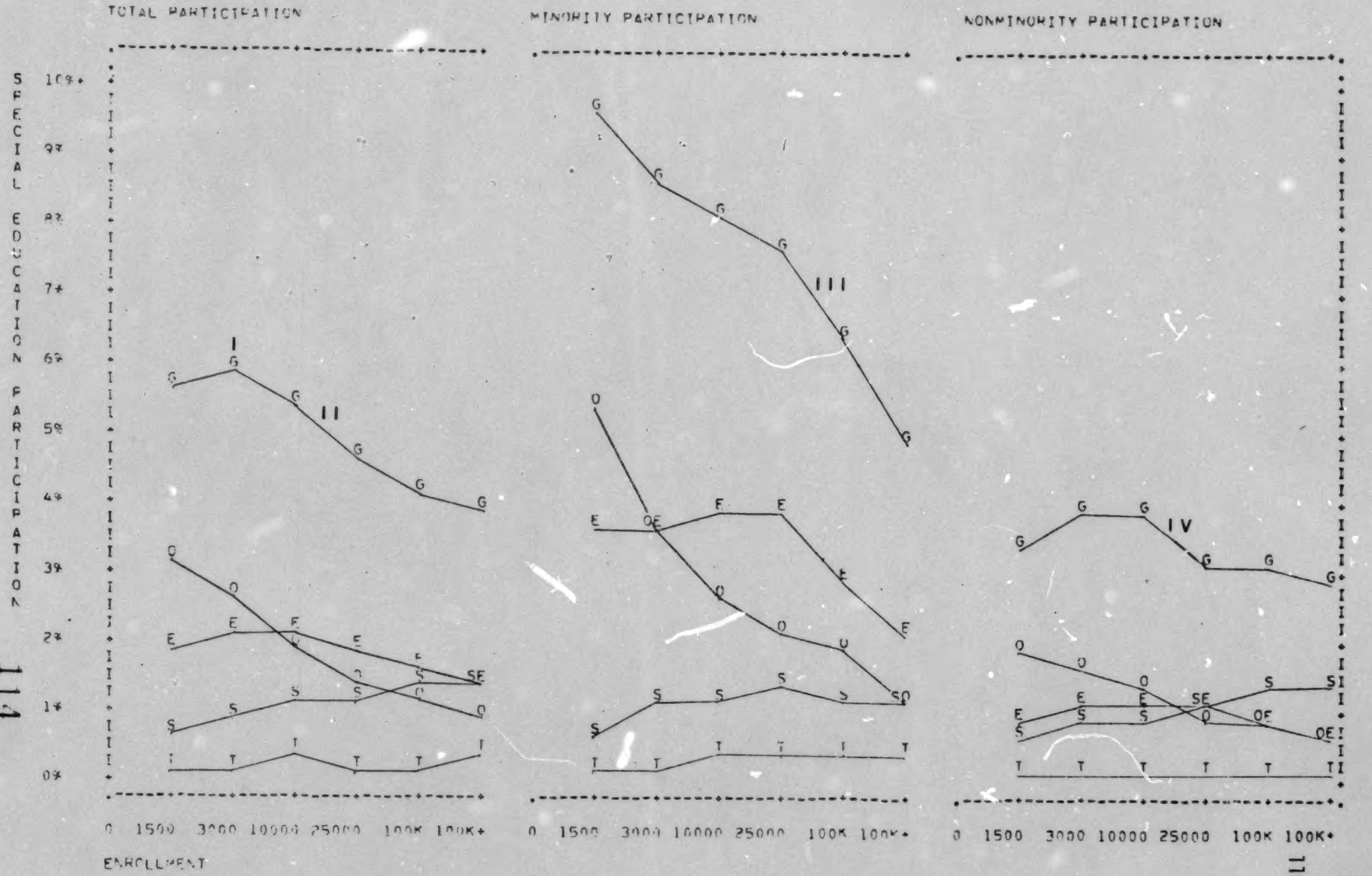
3) Districts in the South are catalogued into six groups: those with 0-1500, 1501-3000, 3001-10000, 10001-25000, 25001-100000, and over 100000 pupils enrolled in the district. In this way, trends in special education participation rates can be observed as the size of districts varies. Thus, point I indicates that 6 out of every 100 students participate in special education in districts in the South with 1501-3000 pupils.

Using these techniques for interpreting the graph, the following observations can be made:

- Point II designates the line which follows special education participation rates for all students in the South. The overall downward slope of the line means that as districts become larger in the South, participation in special education declines. In

# PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT

SOUTH



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

fact, in small districts (0-1500 or 1501-3000), the average participation rate is about 6%; for districts with over 100000 pupils, the rate has decreased to about 4 1/2%. Furthermore, if we look at the other four curves on this graph (marked with O, E, S, and T), we see that TMR participation doesn't change much as districts become larger, that Special Disabilities participation increases, EMR participation generally decreases, and participation in Other programs falls drastically.

- Point III labels the curve which traces Special Education participation rates for minority students as the size of districts increases. Here, the decrease is very pronounced, falling from over 9% to about 5%. The four accompanying curves indicate that declining participation in Other programs is largely responsible for the overall decrease in Special Education participation.
- Point IV marks the trend in Special Education participation for non-minority students as districts' size increases. This curve is flatter than the curve for minority participation (labelled by Point III), suggesting that non-minority involvement in Special Education programs is less sensitive to district size.
- Finally, given curves (i.e., the curves for total Special Education participation labelled with G) from each of the three graphs can be contrasted. For example, if the total Special Education participation curves from the middle and right graphs are compared, we see that for districts of any size, Minorities participate in Special Education at a much higher rate than Non-minorities do. For example, in districts with 0-1500 pupils enrolled, almost 10% of the minority pupils are involved in Special Education while just 3% of the non-minority pupils in these districts participate.

As the interpretation of this sample graph demonstrates, several observations can be derived quickly from this display of data:

1) Trends in participation rates for all aspects of Special Education can be quickly detected from the slopes of curves (steep curves indicate the parameter affects participation; flat curves indicate the parameter has little effect on participation).
2) Trends in all Special Education programs can be analyzed for minority, non-minority or total enrollments by concentrating on one of the three graphs.
3) Differences in the rates at which Minorities and Non-minorities participate in a given program can be discerned by examining a given curve from the graphs on the right and in the middle. Furthermore, these rates can be related to the National level by contrasting them with the graph on the left.

These graphs have been compiled on the Regional and National level for the following ten socio-economic parameters:

- District enrollment size
- Minority enrollment as a percentage of total enrollment
- Percentage of population living below the poverty level
- Per capita income
- Percentage of population living in urban areas
- State revenues as a percentage of total district revenues
- Title I revenues as a percentage of total district Federal revenues
- Per pupil expenditure as a percentage of per capita income
- Percentage of population living below the poverty level in districts with per capita incomes greater than $3,000
- Percentage of population living below the poverty level in districts with per capita incomes less than $3,000

These graphs, and a more detailed interpretation of them, can be found in Appendix A.

Although these graphs contain almost all information needed for analyzing the effect of various social and economic environments upon special education participation and for constrasting participation rates for minority, non-minority, and total enrollments, a different set of graphs has been prepared which focuses on other aspects of Special Education in districts. The format of these graphs follows that of the previous graphs with the following exceptions: one graph, as before, covers participation rates for the total enrollment; one provides the average district enrollment in each program for each parameter group; and the third graph gives the average percentage of minority students enrolled in each program for each parameter group. For a more complete description of these graphs, refer to the second section of Appendix A.

## 3. Tables

Naturally, not all results of this study can be conveniently displayed with graphs. For instance, it would be ludicrous to graphically present enrollment figures for students of each ethnicity in all aspects of Special Education for every district. Data of this nature is most effectively conveyed in formatted tables.

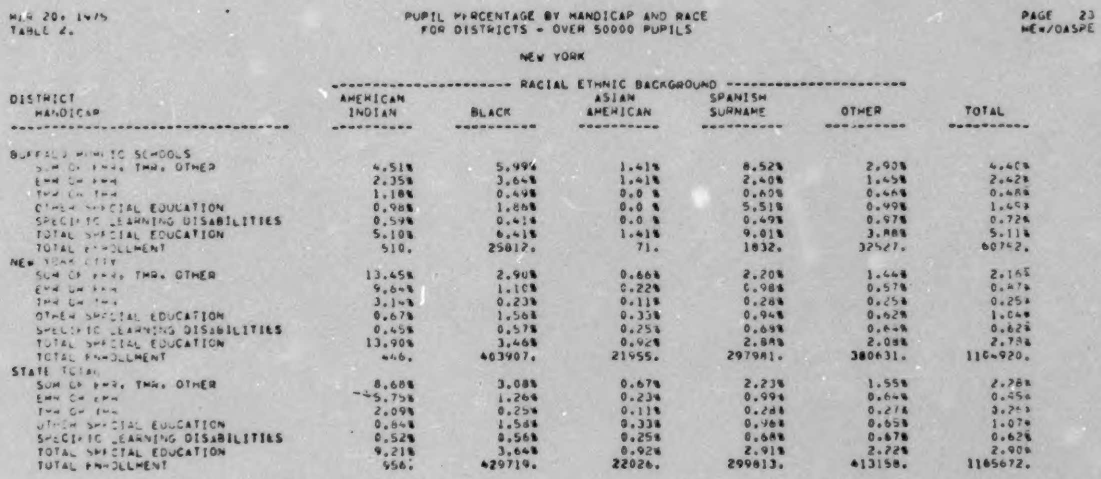
In fact, for many sections of this study, a tabular display provides an effective vehicle for conveying important information. While graphical displays make information easier to absorb, they are limited in their application. Their utility hinges on the presence of a continuous parameter which is to be studied. For example, in analyzing the effect of social and economic conditions on Special Education participation, parameters are considered which assume a continuous range of values (i.e., per capita income can be any number). Therefore, it makes sense to plot Special Education participation rates as the value of a parameter increases in order to discern trends.

However, if we wish to analyze, for example, changes in Special Education participation from state to state, a table which lists each state and its participation rates in the various aspects of Special Education is in order. In this study, tabular displays of information are valuable in the following contexts:

- For geographic breakdowns of information (usually of Special Education participation rates). These area figures either can be actual totals and rates from the 1973 OCR survey or OCR/SDELM information; they can also be totals and rates projected from these two data sources.
- To relate district totals to state, regional, and national averages
- To present several pieces of information simultaneously for each district, state, or region
- To provide complete statistical measures in conjunction with participation information. Even when the special education participation rates are graphed as a socio-economic parameter varies, these rates for each district, state, or region can be accompanied by statistical measures presented in a tabular format.

Examples of tables which fill these needs may be found in Appendices A and B. For volume's sake, Appendix B contains only sample pages and descriptions of each report which presents information tabularly. However, the complete reports have been prepared and bound under separate cover.

The following table (Report 1.2) is representative of the bulk of the tables of Appendix B:



```
MAR 20, 1975                        PUPIL PERCENTAGE BY HANDICAP AND RACE                                  PAGE   23
TABLE 2.                              FOR DISTRICTS - OVER 50000 PUPILS                                    NEW/OASPE

                                                      NEW YORK

                                     --------------------- RACIAL ETHNIC BACKGROUND ----------------------
DISTRICT                             AMERICAN                ASIAN      SPANISH
   HANDICAP                           INDIAN      BLACK     AMERICAN    SURNAME      OTHER       TOTAL
----------------------------------  ----------  ----------  ----------  ----------  ----------  ----------

BUFFALO PUBLIC SCHOOLS
   SUM OF EMR, TMR, OTHER              4.51%       5.99%       1.41%       8.52%       2.93%       4.40%
   EMR OR EMH                          2.35%       3.64%       1.41%       2.40%       1.45%       2.42%
   TMR OR TMH                          1.18%       0.49%       0.0 %       0.60%       0.46%       0.48%
   OTHER SPECIAL EDUCATION             0.98%       1.86%       0.0 %       5.51%       0.99%       1.45%
   SPECIFIC LEARNING DISABILITIES      0.59%       0.41%       0.0 %       0.49%       0.97%       0.72%
   TOTAL SPECIAL EDUCATION             5.10%       6.41%       1.41%       9.01%       3.88%       5.11%
   TOTAL ENROLLMENT                     510.      25812.         71.       1832.      32527.      60752.
NEW YORK CITY
   SUM OF EMR, TMR, OTHER             13.45%       2.90%       0.66%       2.20%       1.44%       2.16%
   EMR OR EMH                          9.64%       1.10%       0.22%       0.98%       0.57%       0.47%
   TMR OR TMH                          3.14%       0.23%       0.11%       0.28%       0.25%       0.25%
   OTHER SPECIAL EDUCATION             0.67%       1.56%       0.33%       0.94%       0.62%       1.04%
   SPECIFIC LEARNING DISABILITIES      0.45%       0.57%       0.25%       0.69%       0.64%       0.62%
   TOTAL SPECIAL EDUCATION            13.90%       3.46%       0.92%       2.88%       2.08%       2.78%
   TOTAL ENROLLMENT                     446.     403907.      21955.     297981.     380631.    1104920.
STATE TOTAL
   SUM OF EMR, TMR, OTHER              8.68%       3.08%       0.67%       2.23%       1.55%       2.28%
   EMR OR EMH                          5.75%       1.26%       0.23%       0.99%       0.64%       0.45%
   TMR OR TMH                          2.09%       0.25%       0.11%       0.28%       0.27%       0.25%
   OTHER SPECIAL EDUCATION             0.84%       1.58%       0.33%       0.96%       0.65%       1.07%
   SPECIFIC LEARNING DISABILITIES      0.52%       0.56%       0.25%       0.68%       0.67%       0.62%
   TOTAL SPECIAL EDUCATION             9.21%       3.64%       0.92%       2.91%       2.72%       2.90%
   TOTAL ENROLLMENT                     956.     429719.      22026.     299813.     413158.    1165672.
```

Tables of this nature concisely present participation rates in all aspects of Special Education for pupils of different ethnic backgrounds. Also, this table includes totals for the following: participation of a particular ethnic group in total Special Education; participation of total minority and non-minority enrollments in a particular aspect of Special Education; participation of the total enrollment in a particular aspect of Special Education; and participation of the total enrollment in the total Special Education programs.

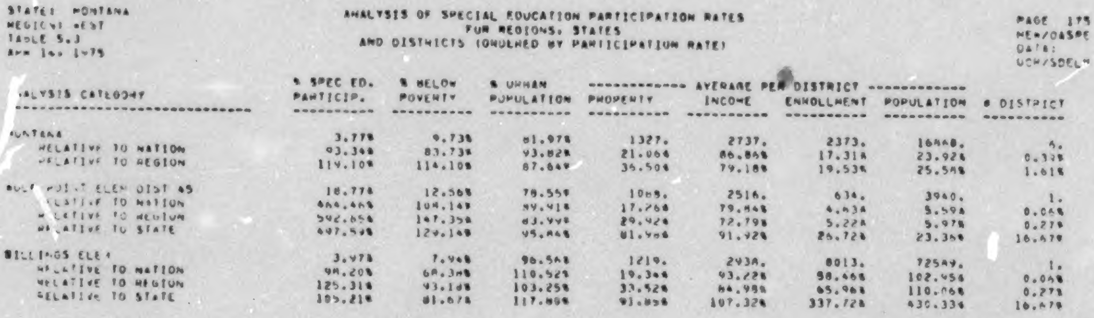
For example, the table given above incorporates the following types of information:

- 1.86% of all Black pupils in the Buffalo Public School District participate in Other Special Education Programs
- 6.41% of all Black students participate in Total Special Education
- 1.49% of All Students participate in Other programs
- 3.88% of All Non-minority Students (Other) participate in Total Special Education
- 5.11% of all students are involved in Total Special Education

In this particular example, Special Education participation figures from OCR 1973 Survey data were given for Buffalo Public Schools. However, precisely the same format can be used to present participation information for a multitude of purposes. The following variations to this table are utilized in this study:

- The figures given for participation in a program can be expressed as the total number of students involved rather than as a percentage rate (see reports 1, 1.1 in Appendix B)
- The data can be taken from the OCR/SDELM file. (See reports 2.2, 4, 3.1 through 3.14)
- Rather than focusing on one district, figures can be given for states, regions, or the nation. These figures could either be totals from all districts surveyed in the area or averages from these districts. (see reports 2.1, 2.2, 2.3, 2.4, 3.1 through 3.14)
- Regional and national totals for all districts (including those not surveyed) can be estimated from information available for those districts which are included in either the OCR 1973 survey or in the OCR/SDELM file. (See reports 2.1 and 2.2)
- Average rates of participation can be given for districts which have in common a particular social or economic characteristic. For example, averages could be presented in this tabular format for all districts with per capita incomes between $1,501 and $2,500 -information regarding such socio-economic characteristics of districts is available for districts in the OCR/SDELM file. (See Reports 3.1 through 3.14)

Another use for tables is to depict diverse district information which characterizes the district's special education participation or its socio-economic nature. A tabular format is especially conducive for relating district figures to State, Regional, and National averages. An example of this type of table is the following (Report 4):



STATE: MONTANA
REGION: WEST
TABLE 5.3
APR [illegible] 1975

ANALYSIS OF SPECIAL EDUCATION PARTICIPATION RATES
FOR REGIONS, STATES
AND DISTRICTS (ORDERED BY PARTICIPATION RATE)

PAGE 175
HEW/OASPE
DATA:
OCR/SDELM

| ANALYSIS CATEGORY | % SPEC ED. PARTICIP. | % BELOW POVERTY | % URBAN POPULATION | AVERAGE PER DISTRICT PROPERTY | INCOME | ENROLLMENT | POPULATION | # DISTRICT |
|---|---|---|---|---|---|---|---|---|
| MONTANA | 3.77% | 9.73% | 81.97% | 1327. | 2737. | 2373. | 16848. | 6. |
| RELATIVE TO NATION | 93.34% | 83.73% | 93.82% | 21.06% | 86.86% | 17.31% | 23.92% | 0.33% |
| RELATIVE TO REGION | 119.10% | 114.10% | 87.64% | 35.50% | 79.18% | 19.53% | 25.58% | 1.61% |
| WOLF POINT ELEM DIST 45 | 18.77% | 12.56% | 78.55% | 1068. | 2516. | 634. | 3940. | 1. |
| RELATIVE TO NATION | 464.46% | 108.14% | 89.41% | 17.26% | 79.84% | 4.63% | 5.59% | 0.06% |
| RELATIVE TO REGION | 592.65% | 147.35% | 83.99% | 29.42% | 72.79% | 5.22% | 5.97% | 0.27% |
| RELATIVE TO STATE | 497.59% | 129.14% | 95.84% | 81.96% | 91.92% | 26.72% | 23.38% | 16.67% |
| BILLINGS ELEM | 3.97% | 7.94% | 96.54% | 1219. | 2938. | 8013. | 72589. | 1. |
| RELATIVE TO NATION | 98.20% | 68.38% | 110.52% | 19.34% | 93.22% | 98.46% | 102.45% | 0.06% |
| RELATIVE TO REGION | 125.31% | 93.18% | 103.25% | 33.52% | 84.99% | 65.96% | 110.06% | 0.27% |
| RELATIVE TO STATE | 105.21% | 81.67% | 117.80% | 91.85% | 107.32% | 337.72% | 430.33% | 16.67% |

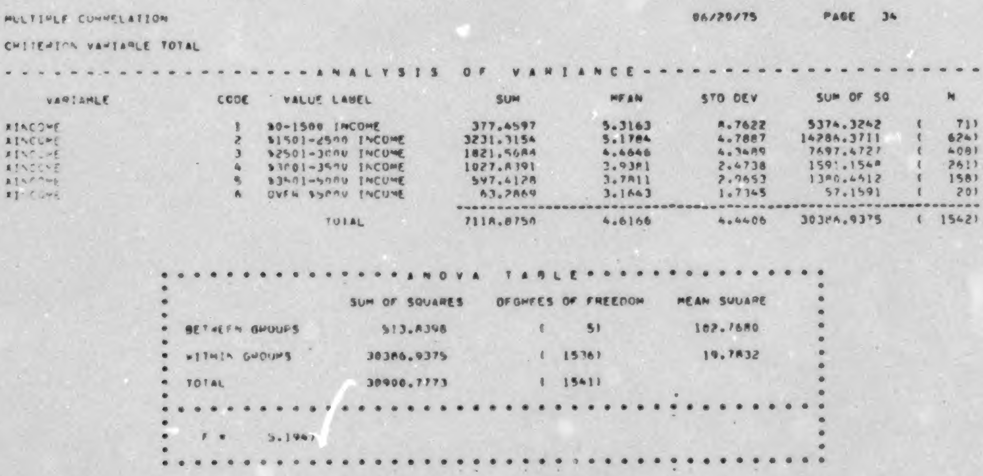
This table presents information on the district, state, regional, and national level. For each area, the following information appears: the average percentage rate at which the area's students participate in Special Education; the percentage of the area's population living below the poverty level; the percentage of population living in urban areas; the average per capita property value; per capita income, enrollment, and population of each district; and the number of districts in the area. Furthermore, all of these figures for districts are related to averages for the state, region, and nation. Similarly, state totals are contrasted with regional and national figures. Examples of the types of information contained in this table include:

- 18.77% of Wolf Point's pupils participate in Special Education. This figure is 497.59% Relative to State, which means it is about 5 times as high as the state average (18.77% compared to 3.77%).
- $2,516 is the per capita income in Wolf Point; this figure is about 9/10 of the state average (2,737), as indicated by the 91.92% Relative to State statistic. Also, $2,516 is a little more than 7/10 of the Regional average (72.79% Relative to Region) and almost 8/10 of the National average (79.84% Relative to Nation).

This format is used to analyze Special Education participation and socio-economic conditions in districts in the OCR/SDELM file. It also is utilized to study Special Education participation in OCR 1973 Survey districts not on the SDELM file (non-SDELM districts).

An important thrust of this study has been to obtain statistical backup to the trends observed in special education participation rates. The effect of socio-economic factors (such as the amount of poverty in a district, its urbanization, etc.) upon pupils' participation in Special Education can be demonstrated graphically; however, the F test must be utilized to judge the statistical validity of observed trends. To this end, F ratios have been calculated for the dependence of participation in all aspects of Special Education upon a number of socio-economic parameters. (Statistical tools used in the study are discussed in the Statistical Analysis subsection.)

Two basic types of tables are used to present this information. In Appendix B, Report 6.1 contains F Ratios for the effect of five socio-economic parameters upon special education participation. Report 6.1 serves as a comprehensive statistical analysis of these trends, including measures such as standard deviations, degrees of freedom, mean square variance, and regression coefficients. An example of this type of table is the following:



```
MULTIPLE CORRELATION                                                      06/29/75         PAGE   34

CRITERION VARIABLE TOTAL

- - - - - - - - - - - - - - - - - - - - - A N A L Y S I S   O F   V A R I A N C E - - - - - - - - - - - - - - - - - - - -

     VARIABLE               CODE   VALUE LABEL               SUM          MEAN        STD DEV      SUM OF SQ        N

XINCOME                       1    $0-1500 INCOME          377.4597      5.3163       8.7622      5374.3242    (    71)
XINCOME                       2    $1501-2500 INCOME      3231.3154      5.1784       4.7887     14286.3711    (   624)
XINCOME                       3    $2501-3000 INCOME      1821.5684      4.4646       4.3489      7697.4727    (   408)
XINCOME                       4    $3001-3500 INCOME      1027.8391      3.9381       2.4738      1591.1548    (   261)
XINCOME                       5    $3501-5000 INCOME       597.4128      3.7811       2.9653      1380.4512    (   158)
XINCOME                       6    OVER $5000 INCOME        63.2869      3.1643       1.7345        57.1591    (    20)
                                                        -------------------------------------------------------------------
                                         TOTAL            7118.8750      4.6166       4.4406     30386.9375    (  1542)


                  * * * * * * * * * * * * * * * A N O V A   T A B L E * * * * * * * * * * * * * * *
                  *                                                                                  *
                  *                       SUM OF SQUARES   DEGREES OF FREEDOM    MEAN SQUARE         *
                  *                                                                                  *
                  *  BETWEEN GROUPS            513.8398       (     5)            102.7680           *
                  *                                                                                  *
                  *  WITHIN GROUPS           30386.9375       (  1536)             19.7832           *
                  *                                                                                  *
                  *  TOTAL                   30900.7773       (  1541)                                *
                  *                                                                                  *
                  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
                  *                                                                                  *
                  *    F =     5.1947                                                                *
                  *                                                                                  *
                  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

The most important information in this table deals with the mean rates of participation and the calculated F Ratios for these means. In this report, the Nation's districts are divided into six categories: those with per capita incomes of $0 - $1,500, $1,501 - $2,500, $2,501 - $3,000, $3,001 - $3,500, $3,[illegible] - $5,000, and over $5,000. From this table we learn that:

- 5.3163% of the pupils in districts with per capita incomes between $0 - $1,500 participate in Special Education (this figure appears in the column headed "MEAN"). Similarly, 5.1784% of all pupils in districts with per capita incomes of $1,501 - $2,500 take part in Special Education.
- 5.1947 is the calculated F Ratio for the means of these six parameter categories (i.e., $0 - $1,500, etc.). An F Ratio of this magnitude assures that, within 99.9% certainty, the apparent decrease in Special Education participation as per capita income in districts increases (5.3163% for districts with $0 - $1,500 income; 3.1643% for districts with over $5,000 income) is meaningful.

Tables in Appendix A also include F Ratios for the relations between participation rates and socio-economic conditions. These tables serve two purposes: they provide numerical backup for the rates which are depicted graphically; and they list F Ratios for each curve which is graphed as well as confidence levels which estimate the significance of apparent trends. An example of this table (each set of four Regional graphs and one National graph in Appendix A are prefaced by a table of this nature) appears below:

AUG 04, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY HEW/OASPE

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- EMR | TMR | OTHER | DISAB | TOTAL | --MINORITY % PARTICIPATION-- EMR | TMR | OTHER | DISAB | TOTAL | NONMINORITY % PARTICIPATION EMR | TMR | OTHER | DISAB | TOTAL | NUM DIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NATION | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.9 | 0.2 | 1.8 | 1.5 | 4.4 | 1.8 | 0.5 | 1.5 | 2.1 | 5.7 | 0.7 | 0.2 | 0.9 | 1.4 | 3.2 | 259 |
| 06-10% POVERTY | 1.4 | 0.2 | 0.9 | 1.1 | 3.8 | 2.8 | 0.3 | [illegible] | 1.1 | 5.6 | 1.0 | 0.2 | 0.7 | 1.1 | 3.1 | 385 |
| 11-15% POVERTY | 1.7 | 0.3 | 1.1 | 1.8 | 4.8 | 2.5 | 0.3 | [illegible] | [illegible] | 5.1 | 1.1 | 0.2 | 0.8 | 1.0 | 3.1 | 299 |
| 16-25% POVERTY | 1.9 | 0.3 | 1.4 | 0.9 | 4.5 | 2.8 | 0.3 | 2.1 | [illegible] | [illegible] | 1.1 | 0.2 | 1.1 | 0.8 | 3.2 | 320 |
| OVER 25% POVERTY | [illegible] | 0.2 | 2.4 | 0.4 | 5.7 | 3.3 | 0.3 | 2.7 | 0.7 | [illegible] | 1.2 | 0.1 | 2.2 | 0.5 | 4.0 | 279 |
| F-RATIO | 28.43 | 3.34 | 9.41 | 18.29 | 9.36 | 16.71 | 3.10 | 5.75 | 9.46 | [illegible] | 7.43 | 5.37 | 4.59 | 14.96 | 0.99 | |
| SIGNIFICANCE % | 99.99 | 99.92 | 99.99 | 99.99 | 99.99 | 99.99 | 98.57 | 99.97 | 99.99 | [illegible] | [illegible] | 99.95 | 99.86 | 99.99 | 58.57 | |

The following illustrations characterize the types of information which can be obtained from this table:

- .9% of the students from districts across the nation with 0 - 5% of their population living in poverty participate in EMR programs
- The percentage of children participating in EMR programs increases as the extent of poverty in districts increases. For districts with over 25% of their population below the poverty level, 2.4% of the pupils are involved in EMR programs.
- 26.43 is the F Ratio computed for the participation of pupils in EMR as poverty becomes more prevalent in districts. Therefore, we can be 99.99% certain that the observed increase in participation rates is a stastistically meaningful trend (i.e. participation rates are statistically different).

Additionally, this study also includes tables with miscellaneous formats; districts and states are listed along with a few attributes. Tables of this type are found in the "Miscellaneous" section (Reports 5.1, 5.2, 5.3, 5.4, 5.5, and 5.6) and underscore the common thread which runs through all of the tabular reports. Whenever information is to be provided for each area (districts, states, or regions), tabular formats are of primary value. In this regard, tabular formats lend themselves to reference, not analysis. While it is possible to analyze results which appear in a tabular structure, this analysis is greatly facilitated if the results can be presented graphically. In a graphic format, trends may be spotted immediately and several trends may be contrasted in a single perusal. For these reasons, the crux of this study's analysis is the graphical displays; however, the large number of tabular reports reflect the depth and breadth of this study.

## D. Statistical Analysis

### 1. Introduction

This study employs several statistical measures which aid analysis. Some of these statistical devices are standard and some have been freshly created. All warrant explanation to assure clarity in their interpretation.

In describing the statistical tools which play an important part in this study, we will emphasize their purposes rather than the mathematics they involve. However, formulas and more complete explanations of statistical tools will follow the sections which concentrate on statistical relevance. We will begin by discussing participation rates and their value to comparative analysis. Then we will treat standard statistical tools (mean, variance, and standard deviation) which establish a framework for the discussion of more complicated statistical measures. These include:

- F Ratios, which give statistical confirmation to observed trends in special education participation as socio-economic conditions in districts vary
- Deviation measure, which points to ethnic differences in a special education program's enrollment
- Correlation coefficients, which quantize the linear effect of of a particular socio-economic condition upon special education participation
- And projection techniques, which take data for a sampling of an area's districts and estimate totals for the area

To furnish a unified approach to describing these statistical measures, we will consider the following hypothetical area, consisting of just three districts:

Figure VII.D.1

REGION: EXEMPLUM

| | Minority | | Non-Minority | | Total | |
|---|---|---|---|---|---|---|
| | # in Program | # Enrolled | # in Program | # Enrolled | # in Program | # Enrolled |
| District A | 100 | 1000 | 100 | 2000 | 200 | 3000 |
| District B | 50 | 500 | 100 | 1500 | 150 | 2000 |
| District C | 50 | 1000 | 50 | 1000 | 100 | 2000 |

## 2. Participation Rates

One calculation which is performed throughout this study involves presenting participation as a percentage rate. Enrollments in area's Special Education program for pupils of a given ethnicity are expressed a a percentage of all pupils of that ethnicity in the area, not simply as the total number involved. The value of considering Special Education participation in this form is as follows: it is of little benefit to comparative analysis to know that District A has 100 Minority and 100 Non-minority pupils involved in Special Education while, in District B, 50 Minority and 100 Non-Minority students participate. However, knowing that 10% of the minority and 5% of the non-minority pupils in District A participate in Special Education and, in District B, 10% of minority and 6.66% of non-minority students are involved accomplishes two goals:

- differing enrollment sizes are compensated for
- participation in Special Education in all districts is treated on the same basis and, consequently, participation rates encourage comparisons

The formula for this rate is

$$\text{Participation rate} = \left(\frac{\text{\# children in program}}{\text{\# children in district}} \times 100\right)$$

A participation rate is simply the percentage of pupils involved in Special Education. It can be calculated for total enrollments or for enrollments of a particular ethnicity. It is a simple matter to compile the participation rates for our hypothetical Region:

Figure VII.D.2

REGION: EXEMPLUM

Participation Rates

| | Minority | Non-Minority | Total |
|---|---|---|---|
| District A | 10% | 5% | 6.66% |
| District B | 10% | 6.66% | 7.5% |
| District C | 5% | 5% | 5% |

3. Mean (Average participation rates)

The mean of a series of values is nothing more complicated than the average of the values. Finding the mean of a variable is a way of characterizing the distribution of the values taken on by the variable - the mean is the value the variable centers around. For example, if three districts' participation rates is 10%, 10%, and 5% then the average value is 8.3% (= $\frac{10 + 10 + 5}{3}$); the values are clearly centered about 8.3%.

The mean (or average) of a series of variables is calculated as follows:

$$\text{Mean (Average)} = \frac{\sum_{i=1}^{\#\,\text{Dist}} (\text{variable})_i}{\#\,\text{Dist}}$$

# Dist is the number of District considered

$(\text{variable})_i$ is the value in the ith district of the variable to be averaged

So, for example, in Figure VII.D.2, the mean participation rate for the three districts is

$$\frac{(10\% + 10\% + 5\%)}{3} = 8.33\%$$

It should be noted that for participation rates, this type of mean (called an unweighted mean) does not take district size into account (i.e., a large district with a 5% participation rate has the same impact as a small district with a 5% participation rate). To take district size into account, the following formula is applied to calculate average participation rates (weighted by district size):

$$\text{Average Rate} = \frac{\sum_{i=1}^{\#\,\text{Dist}} \text{Rate}_i * \text{Enrollment}_i}{\sum_{i=1}^{\#\,\text{Dist}} \text{Enrollment}_i} * 100$$

However, since

$$\text{Rate}_i = \frac{\text{\# in Program}_i}{\text{Enrollment}_i}$$

the above formula for Average simplifies to the following intuitive definition of average participation:

$$\text{Average Rate} = \frac{\text{Enrollment in Program}}{\text{Total Enrollment}} * 100$$

### 4. F Ratio

Statistical support to the trends observed in the graphical displays of average participation rates in Appendix A is provided by a measure called the F Ratio. In analyzing the effect of social and economic factors upon pupils' special education participation, one socio-economic parameter is considered at a time. Districts throughout the nation or throughout a region are placed into one of five or six groupings of this parameter.

For example, if the impact of districts' per capita income is focused upon, districts are catalogued into one of the following six groupings: those with $0 - $1,500, $1,501 - $2,500, $2,501 - $3,000, $3,001 - $3,500, $3,501 - $5,000, and over $5,000 per capita income. Then, the average rates of participation in all aspects of special education are computed for districts in each parameter grouping. For instance, the average rate of involvement in EMR, TMR, etc., would be calculated for all districts with per capita incomes in the $0 - $1,500 range.

To determine whether a socio-economic characteristic affects special education participation, the average rates of participation in each grouping of districts are contrasted. If, as a socio-economic parameter varies, the participation rate increases or decreases, then the socio-economic characteristic would appear to influence special education participation. On the other hand, if the average rates of involvement are stable or fluctuate sporadically, there is probably no relation between participation and the socio-economic parameter considered.

The F test is a statistical measure which can be applied to the type of data analyzed in this study. When many observations (in this case, districts' participation rates) are divided into a few groups (i.e., those with \$0 - \$1,500 per capita income, etc.), the means of those groups can be treated with the F test. The calculated F Ratio will indicate whether apparent trends in those means are due to chance fluctuations or are statistically significant. An F Ratio greater than 3 means we are 99.9% certain observed trends are statistically meaningful; on the other hand, small F Ratios indicate any trends which are observed are probably spurious (i.e., apparent trends are probably due to chance fluctuations). F Ratios play an important part in the tables of Appendix A and in Report 6.1 of Appendix B.

The equation used to calculate the F Ratio, which is fairly complicated, is given below:

$$\text{F Ratio} = \frac{\text{Variance Between Groups}}{\text{Variance Within Groups}}$$

where

Variance Between Groups =

$$\frac{\sum_{i=1}^{\#\text{ Groups}} (\#\text{ Dist})_i((\text{Avg. Participation Rate})_i - \text{Overall Avg. Participation})^2}{\#\text{ Groups} - 1}$$

and

Variance Within Groups =

$$\frac{\sum_{i=1}^{\#\text{ Groups}} \sum_{i=1}^{(\#\text{ Dist})_i} ((\text{Participation Rate})_i - (\text{Avg. Participation Rate})_i)^2}{\#\text{ Dist} - \#\text{ Groups} - 1}$$

where

# Groups is the number of parameter groups the districts are placed into

$\sum_{i=1}^{\#\text{ Groups}}$ is the sum for i = 1, 2, ..., # Groups

$(\#\text{ Dist})_i$ is the number of districts in ith parameter

$(\text{Avg. Participation Rate})_i$ is the average rate of participation for districts in the ith parameter group

$(\text{Participation Rate})_i$ is the rate of participation for ith district

The overall behavior of the F Ratio is more easily followed if the behavior of the numerator and denominator are examined separately.

The numerator, the Variance Between Groups, looks at the diversity of the average rates of participation for the different parameter groupings. For example, the numerator considers the average rate of participation of the districts with per capita incomes in the $0 - $1,500 range, in the $1,501 - $2,500 range, etc. If the average rates are very spread out, the numerator will be large and the F Ratio will be large. A high F Ratio indicates that apparent trends are meaningful. But this is exactly what we would expect: if the different parameter groupings of districts have substantially different means, then the parameter influences participation rates.

Another important contribution to the numerator is the term $(\# \text{ Dist})_i$ which acts as a weight. If each parameter grouping contains many districts, then even small differences in the mean rates of participation for districts in different parameter groupings become significant, simply because there are so many observations.

The denominator, the Variance Within Groups, becomes large if the rates of participation for districts within the same parameter grouping vary considerably. For example, if districts with per capita incomes in the $0 - $1,500 range have participation rates which are very spread out, the denominator will be large and the F Ratio will be small. A low F Ratio indicates that trends observed, if any, are spurious, resulting from statistical fluctuations. The logic behind this dependence is as follows: if districts in the same parameter group have participation rates tightly packed about the mean participation rate of the grouping, it makes sense to treat all districts in that grouping on the same basis. Furthermore, it is reasonable to discuss trends in participation rates as a socio-economic characteristic varies since districts in a socio-economic parameter grouping have similar participation rates.

In contrast, if the participation rates of districts in the same parameter group occur haphazardly, then a district belongs to one parameter group as much as to another. In this case, parameter groupings do not correspond to well-defined participation rates; it no longer makes sense to analyze trends in participation rates as socio-economic condition in districts changes.

### 5. Variance and Standard Deviation

The variance is a common statistical method for measuring how far a series of values are spread about their mean. If the values are very scattered, their variance will be high. If they are tightly packed about their mean, the variance is low. The standard deviation is computed directly from the variance, and shares its characteristics.

The general equation for the Variance is

$$\text{Variance} = \frac{\sum_{i=1}^{\#\text{ Dist}} [(\text{Variable})_i - \text{Average of Variable }]^2}{\#\text{ Dist} - 1}$$

where

# Dist is the number of districts considered

$(\text{Variable})_i$ is the value in the ith district of the variable examined

As an example, we will calculate the variance of the values 10%, 10%, and 5% (the participation rates for Districts A, B, and C given in Figure VII.D.2 about their mean, 8.33%.

$$\text{Variance} = \frac{(10 - 8.33)^2 + (10 - 8.33)^2 + (5 - 8.33)^2}{3} =$$

$$\frac{2.78 + 2.78 + 11.08}{3} = 5.54$$

Notice that the term $(5 - 8.33)^2$ contributes more to the variance than the other two terms combined, since it is further from the mean. This behavior is the essence of variance - values far from the mean are counted much more heavily than values close to the mean.

The Standard Deviation is simply obtained from the Variance:

$$\text{Standard Deviation} = \sqrt{\text{Variance}}$$

This direct relationship insures that the characteristics of variance extend to the standard deviation. In particular, values far from the mean contribute most heavily to the standard deviation. In the example considered above in which the variance is calculated, the standard deviation is quickly computed:

$$\text{Standard Deviation} = \sqrt{5.54} = 2.35$$

## 6. Ratio of Participation Rates

The Ratio of Rates is used to describe how a particular ethnicity's participation relates to the participation of the remainder of an area's enrollment. If the Ratio of Rates is greater than one, then that ethnicity participates more frequently than the rest of the pupils in the area. Conversely, a Ratio of Rates less than one corresponds to less frequent participation.

The equation for this measure is

$$\text{Ratio of Rates} = \frac{\text{Participation Rate for Ethnicity}}{\text{Participation Rate for Rest of Pupils}}$$

For our example Region, the Ratio of Rates (Ratio) for all districts are:

REGION: EXEMPLUM

| | Region<br>Minority | Non-Minority |
|---|---|---|
| District A | 2 | .5 |
| District B | 1.5 | 2/3 |
| District C | 1 | 1 |

These figures are calculated from the rates of Figure VII.D.2 as follows:

$$2 = \frac{10\%}{5\%}, \quad .5 = \frac{5\%}{10\%}, \quad 1.5 = \frac{10\%}{6.66\%}, \text{ etc.}$$

A Ratio of 2 tells us that, in district A, minority students participate in Special Education at a rate which is twice as high as the rate for non-minority pupils. Looking at this figure a different way, a Ratio of 2 indicates that a minority student is twice as likely to be placed in Special Education programs as a non-minority pupil is.

When a Ratio of Rates is to be calculated for an entire area, there are two different ways to treat the districts comprising the area: emphasize those with large enrollments; or, emphasize those with large Special Education programs. The first technique is called weighting by enrollment, the second weighting by program size. To illustrate these techniques, we will calculate the Ratio of Rates for our example Region in both manners:

The Ratio of Rates for Minorities in the Region is,

$$\text{weighting by Enrollment} = \frac{(2 \text{ X } 3000) + (1.5 \text{ X } 2000) + (1 \text{ X } 2000)}{3000 + 2000 + 2000}$$

$$= 1.57$$

$$\text{weighting by program size} = \frac{2 \text{ X } 200 + 1.5 \text{ X } 150 + 100}{200 + 100 + 100}$$

$$= 1.81$$

In either case, the general formula for a weighted average is

$$\text{weighted average} = \frac{\sum_{i=1}^{\#\text{ Dist}} (\text{Variable})_i \, (\text{weight})_i}{\sum_{i=1}^{\#\text{ Dist}} (\text{weight})_i}$$

where

# Dist is the number of districts considered

$\Sigma$ is the sum for i = 1, 2, ..., # dist

$(\text{Variable})_i$ is the value in the ith district of the variable being averaged

$(\text{Weight})_i$ is the value in the ith district of the weight used in calculating the average

Weights are useful in taking averages because they allow emphasis to be placed upon districts with, for example, large enrollments, large program sizes, etc. Note, however, the usual average can be calculated by setting weight = 1 for all districts.

## 7. Deviation Measure

Using the ethnic distribution in an area's enrollment and in its Special Education programs, and the standard deviation for the program's distribution, we can calculate a measure referred to in this study as the Deviation. The Deviation is used to test the hypothesis that a student's ethnicity does not affect his likelihood of being placed in a Special Education program. A low Deviation (less than 2) tends to support this hypothesis while a high Deviation nullifies it.

If ethnicity and Special Education participation are not related, then we would expect the ethnic composition of an area's Special Education program to reflect the ethnic composition of the area. For example, if one out of every ten students in a district are of a particular ethnicity, then we would expect one out of every ten pupils in Special Education programs to be of that ethnicity, if ethnic background does not affect a student's likelihood of being placed in the program.

The Deviation is, in technical terms, the number of standard deviations of pupils separating the actual number of pupils of an ethnicity in a program from the number expected if ethnicity and participation were not related. The formulas used to calculate the Deviation include:

$$\text{Prob} = \frac{\text{\# of Ethnicity in District}}{\text{Total in District}}$$

Expected # of Ethnicity in program = Total in Program X Prob

Difference = (# of Ethnicity in Program) - (Expected # of Ethnicity in Program)

Program Standard Deviation =

$$\sqrt{\text{Total \# in program X Prob X (1 - Prob)}}$$

Deviation = Difference/(Program Standard Deviation)

where

Prob is probability that pupil of given ethnicity will be placed in the Special Education program

In this study, the Deviation is always given as a positive number although, in practice, it can be either positive or negative. The formula for the program Standard Deviation assumes a binomial distribution of ethnicities in a programs enrollment. That is, Prob gives the probability that a particular student in a Special Education program is of a given ethnicity, provided the model that ethnicity has no effect on participation holds. With this model, the mean (or expected) number of pupils of that ethnicity in the program is simply the total number of pupils in the program X Prob. If the model holds, we can predict the distribution of the actual number of pupils of a certain ethnicity in the program about the mean or expected number. A distance of two standard deviations between the actual number and the expected number will occur, by chance, only one time in twenty. So, if the Deviation measure is regularly greater than two for some ethnicity's participation in a program, we can confidently reject the hypothesis that ethnicity and participation are not related. In this study, the hypothesis is generally rejected in Special Education (particularly in EMR and Other programs). The Deviation measure plays an important role in Reports 2.3, 2.4 and 3.1 through 3.14 in Appendix B. A detailed explanation of it appears in Report 2.3.

## 8. Correlation Coefficient

Correlation coefficients attempt to capsulize in a linear equation the impact of one variable upon another. In this study, correlation coefficients were generated for the effect of districts socio-economic characteristics upon their Special Education participation rates. Coefficients were calculated for any combination of rates and parameters which could conceivably be related (for a complete list, see Report 6.2 in Appendix B). However, as the equation below will suggest, correlation coefficients are very sensitive to variance, of which there is a great deal in the participation rates of districts throughout the country. For this reason, calculating correlation coefficients did not constitute a viable statistical documentation of observed trends.

Correlation coefficients are generated with the following equation:

Correlation coefficient =

$$\frac{\sum_{i=1}^{\#\,\text{Dist}} (X_i - \overline{X})\,(Y_i - \overline{Y})}{\left[\sum_{i=1}^{\#\,\text{Dist}} (X_i - \overline{X})^2 \sum_{i=1}^{\#\,\text{Dist}} (Y - \overline{Y})^2\right]^{1/2}}$$

where

| | | |
|---|---|---|
| # Dist | is | the number of districts being considered |
| $\sum_{i=1}^{\#\,\text{Dist}}$ | is | the sum for i-1, 2, 3, ..., # dist |
| $X_i$ | is | the value of a variable X in the ith district |
| $\overline{X}$ | is | the average value of the variable X for all districts |
| $Y_i$ | is | the value of a variable Y in the ith district |
| $\overline{Y}$ | is | the average value of the variable Y for all districts |

The value of the correlation coefficient is always between 1 and -1. A value of +1 corresponds to a strong linear relation between X and Y (as X increases, Y increases). -1 indicates that as X increases, Y decreases. If the correlation coefficient is near 0, there is no noticeable linear relation between X and Y.

Notice if the variable X (which could be, for the purposes of this study, participation rates) varies considerably about its mean, then the denominator will be large and the correlation coefficient will be near 0. Such proved to be the case in this study and a different statistical measure, the F Ratio, proved more valuable in statistically confirming observed trends.

## 9. Projection Techniques

Analysis is often conducted on randomly drawn subsets of data. Statistical techniques can then be used to estimate overall trends (i.e., predicting nationwide education trends based on a sampling of school districts). This study utilizes data from the OCR 1973 survey, which contains information for more than one-half of the nation's school-age population. If a survey employs statistical sampling, it is an elementary matter to project complete totals for regions and the nation from figures collected from the districts sampled. Unfortunately, the OCR 1973 Survey is not a strictly random sample of districts. Consequently, some maneuvering is required to project Regional and National totals. Reports 2.1 and 2.2 of Appendix B contain such projected totals.

The key to this projection process is relating the 1973 Survey to the 1972 Survey which did take a statistically valid sampling of school districts. All but 40 of the 2,900 school districts on the OCR 1973 Survey also appear in the 1972 Survey. Projecting consists of the following steps:

- Estimate the probability that a district in the OCR 1972 Survey (a more complete survey than the 1973 Survey) would be picked for 1973
- Use the probability that a district on the 1972 Survey would be selected from all our Nation's districts; this process can be carried out since the 1972 Survey is statistically valid
- Assign weights to all 1973 OCR Survey districts to project to the regional level (based on the 1972 and 1973 weights).

Assigning projection weights is carried out as follows: if it is determined that a district in the 1973 Survey had just one chance in ten of being selected from all districts in the nation, that district is assigned a weight of ten.

The motivation for this weight of ten is that the district should be counted once for itself and nine more times for districts with similar characteristics which were passed over when the survey was taken. So, if a district in the 1973 Survey had one chance in three of getting there, it would receive a weight of three to account for the three districts in the nation it represents.

The most intricate aspect of assigning a projection weight to a district in the OCR 1973 Survey is estimating the probability it would be selected from the districts surveyed in 1972. Accomplishing this end involves several steps, which will be outlined, and culminates in a recursive linear programming technique which yields the best estimate for this probability. Prior to outlining the steps taken, it is worthwhile to relate what is known about the 1973 selection process. Districts were surveyed if they met any of several specified criteria which depended upon qualifications such as large enrollments, large minority composition, involvement in Civil Rights lawsuits, etc. The presence of districts automatically surveyed renders the 1973 Survey statistically not a random sample, and numerous steps must be taken if accurate regional or national totals are to be projected from the data on districts surveyed. However, it should be noted that the OCR 1973 Survey is extensive enough (over one-half of all pupils are surveyed) that analysis performed on these districts provides conclusions which hold on the national level without complications.

At any rate, the steps taken to project regional and national figures include:

- selecting factors important in determining which of the 1972 survey districts were included in 1973. Those factors include such characteristics as enrollment size, percentage minority composition, etc.
- using these factors, hypothesize a set of probabilities which governed a 1972 survey district's chances of being surveyed in 1973. Initial probabilities could be, for example

  $$\frac{\text{enrollment size}}{50{,}000} \quad , \quad \frac{\text{percent minority composition}}{20\%}$$

  In this example, we estimate that a 1972 survey district with an enrollment of 25,000 would have one chance in two of being selected for the 1973 Survey (1/2 = 25,000/50,000), while districts with enrollments of 50,000 or more will automatically be selected (selection probability of 1).
- For each 1972 district, we can estimate a selection probability, utilizing our district selection model. Using this we can also estimate the probability that a 1972 survey district was excluded from the 1973 Survey. This probability, the rejection probability, is simply (1 - Selection Probability).

  The probability of selecting exactly those districts appearing on the 1973 Survey from district appearing on the 1972 Survey is simply the arithmetic product of all estimated district probabilities (i.e., the probability that: the first 1972 district was chosen and the second 1972 district was not chosen, and the third 1972 district was not chosen, etc.). For example, if district A has a selection probability of .4, and does appear in the 1973 Survey, the first term of the product is .4; if district B has a selection probability of .1 and does not appear in the 1973 Survey, the second term is .9 (1 - .1), the rejection probability. This process is carried out for all districts in the 1972 Survey and we obtain

(Product to be Maximized) = (.4) (.9) ...

The problem then is to assign individual district selection probabilities which will maximize the overall selection process probability.

- By adjusting our initial probabilities, we can change the value of the (Product to be Maximized). For example, a better probability estimate may be

$$\frac{\text{enrollment size}}{40{,}000} \quad \text{rather than} \quad \frac{\text{enrollment size}}{50{,}000}$$

These probabilities are adjusted, using a recursive linear programming technique, until the (Product to be Maximized) is maximized. What we have accomplished is the following: we have made the best possible estimate, using available data on districts, of how factors contributed to any nonrandom selection of districts for the 1973 Survey.

- Once we obtain probabilities for districts in the 1973 Survey being selected from the more complete 1972 Survey, projecting regional totals is a straight-forward process. Suppose a district in the 1972 and 1973 Survey had one chance in two of getting selected from the 1972 Survey for the 1973 Survey. Since the 1972 Survey was statistically valid, we know the probability of its being selected for the 1972 Survey from the entire nation's school districts; say, for example, that this probability is 1/3. Combining the two probabilities, we know that the district in the 1973 Survey had just one chance in six (1/2 X 1/3 = 1/6) of getting picked from all of the districts in the nation. Therefore, we assign it a weight of six to account for itself and the other five districts like it which were passed over when the survey was taken.

## E. Local Service Distribution Analysis

### 1. Background

Our analysis of the impact of socio-economic, geographic, and racial ethnic factors upon special education participation implicitly assumes that, for the most part, children attending special education programs, reside in the school district providing the programs. For example, a hypothetical observation that special education participation increases with increasing district per capita income could be explained by certain district characteristics (i.e., higher income districts can afford more extensive special education facilities, such district tend to employ a greater number of school psychologists who are capable of identifying special education pupil requirements, etc.). However, this hypothetical observed trend could also be explained by the existence of cooperative special education arrangements under which special education service center districts provided centralized programs for children in all neighboring districts. In such cases (independent of any socio-economic influences), special education service center districts would have relatively high special education participation while neighboring districts would have low participation (since they would send children to the special education service center district).

Local service distribution analysis was undertaken to identify and, if necessary, take into account the following two potential analytic effects of cooperative, centralized special education programs:

- Clustering of special education services could obscure trends attributable to socio-economic influences. For example, a hypothetical high special education rate in rural communities could be obscured if rural children generally attended centralized programs in urban areas.
- Observed trends could be the results, not of socio-economic factors, but of cooperative arrangements for providing centralized special education services.

Initial motivation for analyzing the prevalence of centralized services resulted from our knowledge of the Special School District of St. Louis which provides all special education programs for St. Louis County. In addition, the study objectives have, by no means, exhausted relative subject areas including the existence of BOCES and IU programs for providing services.

## 2. Method of Analysis

Analysis of the distribution of local special education services entailed the following three procedures:

- Identify potential instances of cooperative arrangements for providing special education services
- Telephone some of identified potential districts to determine if cooperative sharing of services exists; and if it does exist, ascertain the types of services and names of the districts sharing the services
- If centralized sharing of services is significant, treat participant districts in shared service arrangements as single composite districts throughout all socio-economic analyses.

These procedures are discussed below.

Identification of potential special education service sharing arrangements. The OCR/SDELM analysis file does not contain information concerning the sharing of special education facilities and services by neighboring school districts. Therefore, the following steps were taken to identify potential district candidates for such cooperative arrangements:

- A computer list of all districts (ordered by district name within city and state), was produced with the following information for each district:
  - Special Education Participation Rate
  - Enrollment
  - District Name
  - City and State Names
  - OE Code and Index Identification Number (Index numbers for districts with SDELM information started at 1; numbers for districts with no SDELM information started at 5001)

- Each district's Index Identification number and participation rate were placed on state maps according to the district's geographic location.
- Potential special education sharing arrangements were identified by the presence (on the maps), of districts with high participation rates surrounded by districts with low participation rates.

Figure VII.E.1 illustrates a group of potential cooperative arrangement districts in which district 5036 (Midfield School District) has over 15% special education, and is surrounded by districts with from 2% to 4% participation.

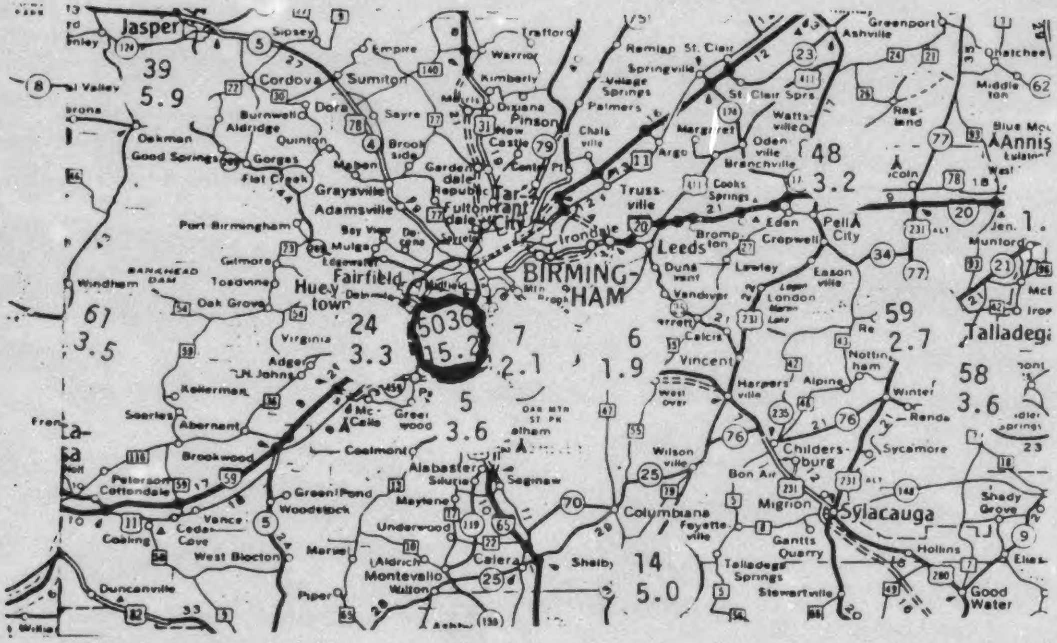
Approximately two hundred high special education districts were identified as potential centers of special education services for surrounding districts. These districts, and surrounding low participation districts were recorded in a log book in preparation for sample telephone interviews.

Maps and interview log book are presented under separate cover.

Telephone interview of districts with potential special education cooperative service arrangements. Fifty school districts were interviewed by telephone to determine if they participated in cooperative special education service provision arrangements; and if so, to determine the nature of the agreements, and the names of the participating school districts (notes on all interviews are presented under separate cover). For the most part, interviews were conducted with potential Service Center districts (i.e., high participation districts surrounded by low participation districts).

Observations from the analysis and fifty telephone interviews are presented in the next subsection.

Figure VII.E.1: Sample Map of Potential Special Education Cooperative Service Arrangements


39
5.9
61
3.5
24
3.3
5036
15.2
7
2.1
6
1.9
5
3.6
48
3.2
59
2.7
58
3.6
14
5.0
Jasper
BIRMINGHAM
Leeds
Pell City
Talladega
Sylacauga
Fairfield
Hueytown

District 5036 (Midfield School District) has 15.2% special education participation and is surrounded by districts with much lower rates. (A district number of greater than 5000 indicates that the district is on the OCR but not the ELSEGIS survey.)

## 3. Observations

Observations from the analysis of the distribution of local special education services, and in particular of the fifty interviews of potential cooperative service districts, are summarized as follows:

- Cooperative agreements for providing centralized special education services do not have significant impact on analysis of the relationship between socio-economic factors and special education participation.
- EMR programs are most often handled by individual districts.
- Small numbers of TMR, severely handicapped, and severely emotionally disturbed children are often sent to programs in other districts or to institutions. As need increases, districts develop their own facilities for these pupils.
- Cooperative arrangements for providing centralized special education services do exist.
- The category of Other special education is a significant factor in many districts with very high special education participation rates.

These observations are discussed more thoroughly, below.

Impact of cooperative service agreements upon the socio-economic analysis of special education participation. The primary objective of the local service distribution study was to determine if the existence of cooperative district arrangements for providing centralized special education services obscures trends of socio-economic influence on special education participation. District interviews indicate that such cooperative efforts do not have significant effect on special education participation analysis, for the following reasons:

- Much special education is provided almost entirely by individual school districts for pupils residing in the school district.
- The great majority of sharing arrangements involve small numbers of severely handicapped or disturbed children requiring very specialized care, facilities, equipment, etc. If need becomes significant, districts tend to develop their own facilities.

- In many shared service agreements, pupils attend central facilities under a tuition system in which the sending school district pays tuition and retains, in its enrollment, the students attending shared programs.

Specific examples of these trends are discussed in the special education program descriptions that follow.

EMR programs are most likely to be handled completely by individual districts. The great majority of districts interviewed stated that they handled all their own EMR pupils, and did not accept pupils from other districts (except for individual cases where there was no other way to provide required service). Within certain individual districts, however, special education schools did handle EMR service for the entire district.

Examples of EMR local service patterns follow:

- De La Warr School District, Delaware: Districts handle most EMR children on their own.
- Marion County District, Florida: Individual districts handle, themselves, most EMR, TMR, and emotionally disturbed children.
- Freemont County District No. 14, Wyoming: District handles its own EMR pupils and does not accept pupils from other districts.

TMR pupils are more likely than EMR pupils to be sent out of the district for services. TMR programs involve much fewer numbers of pupils than EMR programs. In some districts, the number of TMR pupils is too small to establish a TMR program and students requiring services must, therefore, be sent out of the district. Also, TMR pupils sometimes need more specialized services than EMR pupils. Often, districts send out TMR pupils under a tuition agreement in which the district pays tuition to TMR student services, and in return such children are kept on the sending district's enrollment counts. As TMR service requirements increase, districts develop their own TMR facilities, often as a requirement of law.

Examples of TMR local service patterns follow:

- Ozark City District, Alabama: TMR and emotionally disturbed pupils from all over Dale County are sent to the Vivian B. Adams Special School of the Ozark City School District.
- Sunnyside Elementary District No. 12, Arizona: District No. 1 has facilities for serving TMR children.
- Norwalk Public Schools, Connecticut: TMR pupils are accepted from neighboring areas including Redding, Willton, and Weston.

Severely handicapped and severely emotionally disturbed children are the most likely category of special education to be sent out of the district for services. Many school district simply do not have specialized facilities for serving severely handicapped and severely emotionally disturbed pupils, and a number of methods are used for providing required programs:

- Pupils are sent to neighboring districts that have made cooperative arrangements with local hospitals or have their own facilities. This is sometimes done under a tuition agreement in which the sending district pays tuition, and maintains the pupils on its own enrollment rolls.
- Pupils are sent to state supported or private facilities.

Examples of such local service patterns follow:

- Hope District, Arkansas: The Children's Colony Center in Conway accepts deaf children
- Fillerton Elementary District, California: Deaf children are sent to Centralia, blind children are sent to Anaheim. Hearing disabilities are sent to Orange. Severely disturbed children are sent to the Development Center for Handicapped Minors (such children remain on sending district's enrollment rolls).
- Norwalk Public Schools, Connecticut. There is a Westgate Cooperative School for the physically handicapped serving Fairfield, Westport and Western Districts. The project is financed by Federal grants, and sending district's retain pupils on their enrollment counts.

Cooperative arrangements for providing special education services do exist. The local service distribution study did not rule out the existence of cooperative service agreements. Rather, for reasons previously discussed, it indicated that the existence of such agreements will not obscure socio-economic analysis of special education participation trends. In fact, a variety of cooperative agreement types have been discussed previously in the section. Several additional examples of cooperative endeavors for providing centralized special education services are as follows:

- Special School District of St. Louis, Missouri: Handles all special education for St. Louis County.
- Pueblo City District, Colorado: Pueblo Rural District sends visually handicapped children to Pueblo City.
- Norwalk Public School District, Connecticut. There is a cooperative Norton Special School for serving autistic, language, and severely emotionally disturbed children. Finances are shared by neighboring districts and sending district's retain pupils on their enrollment rolls.

Significance of category of Other special education in districts with very high participation rates. In the course of telephone interviews, certain districts were surprised at their high special education participation rates reported to the OCR survey. Further investigation revealed that most often it was large numbers of pupils specified as requiring Other special education services that caused overall participation to be high. The OCR category of Other special education includes pupils designated as "slow learners". Certain districts interpreted this to include pupils receiving remedial reading and "slow learners" assistance under such programs as ESEA Title I and bilingual programs.

Because of potential alternative district interpretations of the Other special education category, its impact on total special education participation was examined throughout all socio-economic analysis of special education participation rates.

# ANALYSIS OF 1973 PARTICIPATION OF HANDICAPPED CHILDREN IN LOCAL EDUCATION PROGRAMS

## APPENDICES

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# APPENDIX A

## GRAPHS

## APPENDIX A

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# OVERVIEW AND SAMPLE GRAPH DESCRIPTION

## SINGLE VARIABLE GRAPHS

# REPORT TITLE: Special Education Participation Rates by Various Socio-economic Parameters - Graphical Display

## I. Report Format and Content:

This section contains graphic trends between Special Education participation rates and social and economic conditions in districts. Data regarding several parameters of a socio-economic nature (i.e., per capita income, percent urban, etc.) is available from the OCR/SDELM file. A parameter can be partitioned into several categories and districts can be grouped accordingly. The behavior of Regional and National participation rates for EMR, TMR, Other programs, Special Disability, and Special Education as a whole with respect to district characteristics can then be analyzed.

For example, we know the percentage of people living below the national poverty level for each district in the OCR/SDELM file. We shall consider "Percent below Poverty" to be a parameter and partition it into the following categories: 0-5%; 6-10%; 11-15%; 16-25%; and over 25% of a district's population living in poverty. We divide the parameter into small ranges (i.e., 0-5%, 6-10%) for categories near the national average and choose larger ranges (i.e., 16-25%, over 25%) for categories far from the national mean. This method of partitioning parameters insures that approximately the same number of districts fall into each category.

Obviously, the value of each district's Percent below Poverty determines its classification. Average participation rates for all phases of Special Education can be compiled for the districts in each category of the parameter. For example, we can calculate the average rate of participation in EMR, TMR, etc., for all districts in the South with 5-10% population below poverty level.

Finally, participation rates in the four Special Education programs and in Special Education as a whole can be graphically displayed for each value of the parameter. Trends in participation rates due to a change in some parameter may emerge; presenting this information graphically allows easy detection of these trends.

This analysis considers ten socio-economic parameters in all. For each parameter, participation rates are examined for the nation as a whole and for each of four Regions - Northeast, Midwest, South, and West. Rates are analyzed for each of five Special Education categories - EMR, TMR, Other programs, Special Disability, and total Special Education. Also, participation rates are calculated for the minority, the non-minority, and the entire student enrollment in an area.

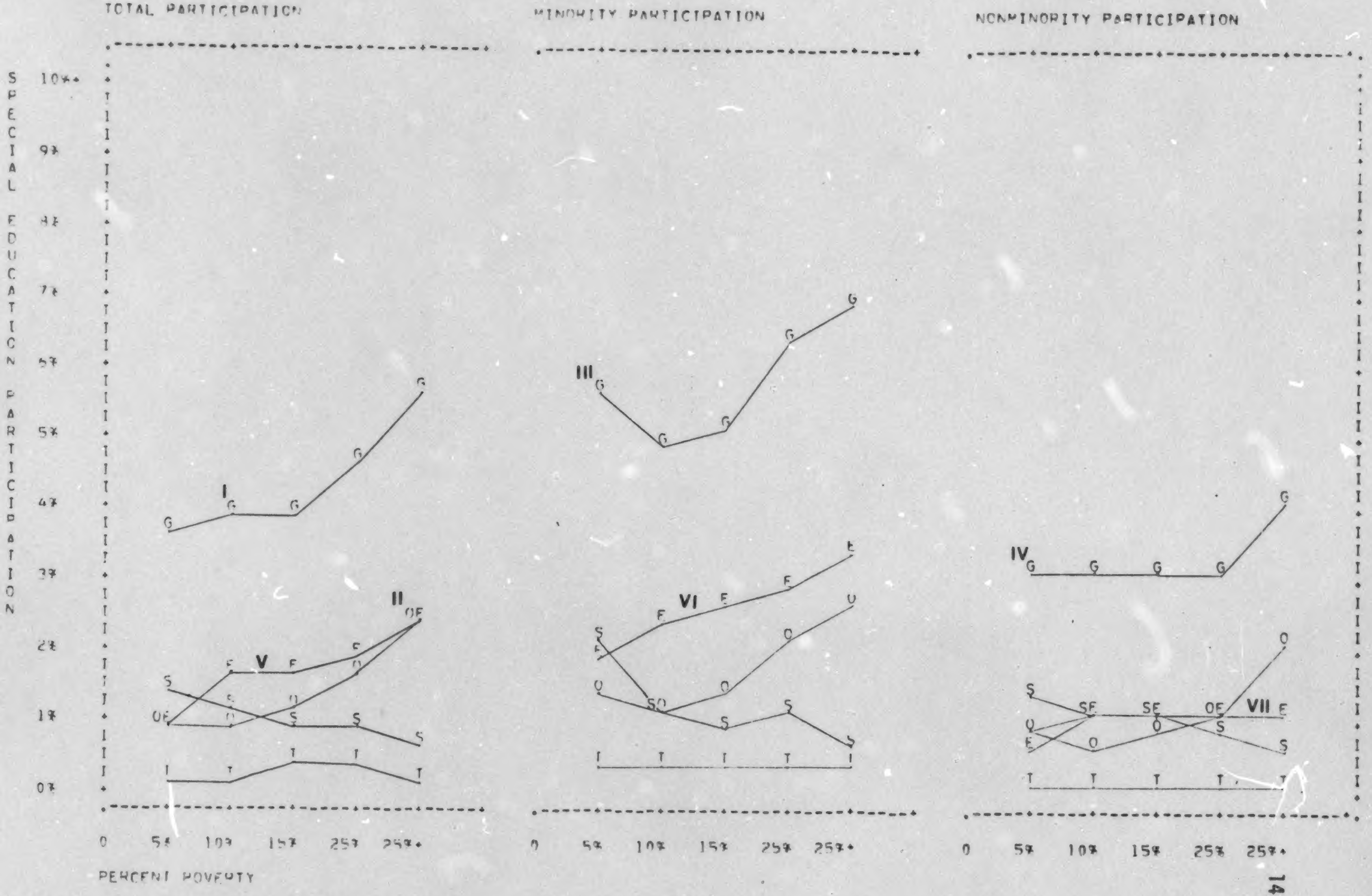
Participation rates for minority participation are expressed as percentages of the minority enrollment in an area; similarly, percentage figures for non-minority participation are in terms of the non-minority enrollment.

Prefacing each set of five graphs (four regional and one national) for each parameter is a summary description of observed trends followed by a summary table of numerical graph values. Values of all national and regional participation rates are recorded for each parameter value. Also included are values of a statistical measure, the F Ratio, which estimates the likelihood that observed patterns or trends in participation rates as a parameter varies are statistically significant.

A sample graph from this section is the following:

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY HEW/OASPE

NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

## II. Sample Graph Description

The following points may aid in interpreting the graphs of this section:

- One of the first things we notice is that each graph has five lines. Each line corresponds to participation in some phase of Special Education. As the key below the graph indicates, letter symbols labelling lines and Special Education programs match up in the following fashion:

  1) E represents percentage of enrollment participating in EMR or EMH programs
  2) T corresponds to participation in TMR or TMH programs
  3) O indicates participation in Other Special Education programs
  4) S points to participation in Special Disabilities programs
  5) G labels participation in Special Education as a whole.

  So, for example, point I corresponds to 4% of the student enrollment participating in Special Education in general.

- Occasionally, the rates of participation in two programs will be equal, something which occurs at point II. A point labelled with "OE" means the rate of participation in Other programs and in EMR is the same - in this case, 2 1/2%.

- On all pages of this section, there are three separate graphs (on the left of the page, middle of the page, and right of the page). These are designated by the captions "Total Participation," "Minority Participation," and Non-minority Participation" which appear near the top of the page. On the left-hand graph, point I has a value of 4%; to determine the value of a point, simply see how high up it is along the scale on the left-hand side of the page labelled "Special Education Participation." The meaning of this value of 4% from the "Total Participation" graph is as follows: 4 out of every 100 students participate in Special Education.

  Similarly, point III says 6 out of every 100 (6%) minority students participate in Special Education. Point IV tells us that 3 out of every 100 non-minority pupils are involved in Special Education.

- When dealing with these graphs, it is crucial to keep in mind that we are dealing with rates - not total numbers. The fact that point III is higher than point IV does not say that more minority than non-minority pupils are in Special Education programs. Rather, it tells us that minority students participate in Special Education at a higher rate than non-minority pupils do.

An example with numbers may be helpful at this point. Suppose the minority rate is 6% and the non-minority rate is 3%. These rates mean 6 out of every 100 minority students in an area participate in Special Education while only 3 of every 100 non-minority students participate. So if an area has, for instance, 100 minority students and 1,000 non-minority students, then there would be 6 minority students and 30 non-minority students in Special Education. If, however, the area had 1,000 minority and 1,000 non-minority students, then 60 minority and 30 non-minority students would be involved in Special Education. So two areas, with identical participation rates, have in one case more and in the other case less non-minority than minority students in Special Education.

However, it is the rates at which an area's students participate in Special Education programs and not the total number of pupils in the programs that are important to an analysis. Special Education participation in districts with different enrollment sizes can be compared through rates. Ethnic disparities in participation become apparent when rates are used. Trends in participation as some social or economic characteristic of the districts (i.e., per capita income) changes can be discovered if percentage rates are examined. In essence, rates allow comparative analysis.

- Each graph in this section shows how Special Education participation rates change as some socio-economic characteristic of school districts is varied. For this particular graph, the parameter considered is "Percent Poverty". Districts in the Nation have been grouped into the following categories: 0-5%; 6-10%; 11-15%; 16-25%, and over 25% of the population living below the poverty level. Once all of the districts from the OCR/SDELM file are divided up into these five groups, the average participation rates in all phases of Special Education for each parameter group (i.e., for all districts in nation with 0-5% of their population living in poverty) are computed and points on the graph are plotted using this information.

So point I, which appears directly above the 10% figure on the horizontal axis at the bottom of the page, gives the average rate of participation for all students in districts with 6-10% of the population below poverty level. Similarly, point II tells us the average participation rate in Other programs and in EMR for all students living in districts with over 25% (25%+) of the population in poverty.

- Point V labels the line which follows the behavior of EMR participation as poverty in districts increases. For districts with very little poverty (0-5% population below the poverty level), approximately 1% of all students are involved in EMR programs. The rate of students' participation steadily increases as more impoverished districts are considered, reaching over 2% participation for districts with extreme poverty (over 25% of population below poverty level).

- Point VI designates the line which shows the trend in minority students' participation in EMR as districts' poverty increases. This line in the middle graph demonstrates that in districts with little poverty (0-5% poverty) less than 2% of the minority enrollment take part in EMR schooling while in very poor districts (over 25% poverty) nearly 4% of minority pupils participate in EMR programs. The increase in the participation rate is steady over those districts of intermediate poverty.

  Although this curve strongly suggests that as poorer districts are considered minority pupils become more likely to participate in EMR programs, there may be some questions as to whether the increase occurs simply because of statistical fluctuations. Therefore, the F test has been applied to this curve and all others in this section. The F test looks at a sequence of values (in this case, the five percentage rates for the different parameter groupings of Percent Poverty) and estimates the likelihood that the changes observed from value to value are statistically significant. In this example, the F ratio will tell us how certain we can be that the observed increase of the EMR curve is statistically meaningful. The F ratio computed for this curve is 14.71, which means we are 99.99% certain that the increase in minority EMR participation as districts become poorer is an actual trend rather than the by-product of statistical fluctuations. The lower the F ratio, the more likely it is that an observed slope in the curve (suggesting a trend) is due to chance. If a parameter does not have any affect on participation rates, we would expect the curve to be essentially flat.

- Point VII labels the line which demonstrates how non-minority students' participation in EMR varies as poverty increases in districts. The line is essentially flat, meaning the rate at which non-minority pupils participate in EMR training is not affected by the poverty level of the district.

  From the three lines, marked with "E" we can conclude the following about EMR participation rates:

  1) Right graph: as districts become poorer, the rate at which non-minority students are involved in EMR does not change substantially - since the curve is flat.
  2) Middle graph: as districts become poorer, minority students are more likely to be placed in EMR programs - since the curve slopes upward.
  3) Left graph: as districts become poorer, students in general are involved more often in EMR - since the curve slopes upward.
  4) Furthermore, we see that the increase in all students' participation in EMR as districts become poorer must be attributed to increasing minority participation in EMR.

- Using the techniques we have developed here for analyzing these graphs, we can examine the three curves tracing TMR participation rates as districts become poorer. The following points are made clear by the graphs:
    1) Students of any ethnicity participate in TMR training less often than in any other Special Education program - since the TMR curves (labelled with T's) lie below the other curves.
    2) The effect of changes in the parameter Percent Poverty have little effect on TMR participation - since the TMR curves in all three graphs are essentially flat.

## III. Graph Descriptions:

Percent Poverty: These figures display trends in Special Education participation rates as the percentage of districts' populations living in poverty increases. Participation rates for minority students, non-minority students, and all students are considered for the nation (first graph) and for all four regions. Districts are grouped into the following categories: 0-5%, 6-10%, 11-15%, 16-25%, and over 25% of the population living below the national poverty level.

Per Capita Income: Participation rates in EMR, TMR, Other programs, Special Disabilities, and Special Education as a whole are considered as the per capita income of districts increases. Analysis of minority, non-minority, and all pupils' participation is carried out on the national and regional level. Districts are partitioned in the following manner: those with average per capita incomes of $0 - $1500, $1501 - $2500, $2501 - $3000, $3001 - $3500, $3501 - $5000, and over $5000.

Percent Urban: National and regional analysis of participation rates in all phases of special education is conducted for the nation and for the four regions. The behavior of minority, non-minority, and total enrollments is considered as districts become more urbanized. Districts are divided into the following groups: those with 0-5%, 6-25%, 26-50%, 51-75%, 76-95%, and over 95% of their population living in urban areas.

Percentage Minority: The effect of the percentage of minority students in a district on special education rates is analyzed in these figures. Trends in participation for minority, non-minority, and all pupils are searched for on the regional and national level. Districts are placed into one of the following six classifications: those with minority students comprising 0-10%, 11-20%, 21-30%, 31-50%, 51-80%, and over 80% of the total enrollment.

Enrollment: In these figures, pupils' participation rates in special education are related to the enrollment size of the districts in which they live. National and regional trends are displayed for minority, non-minority and total enrollments for the following six groupings of districts: those with total enrollments in the ranges 0-1500, 1501-3000, 3001-10000, 10001-25000, 25001-100000, and over 100000.

Percent State Revenue: National and regional participation rates are graphed as the percentage of a district's revenue coming from its state government increases. The participation of minority, non-minority, and all students is examined. Districts are placed into the following categories: those whose state governments provide 0-20%, 21-30%, 31-40%, 41-50%, 51-60%, and over 60% of their total revenue.

Percent Title I Revenues: In these figures, the effect of Title I Revenues on special education participation is analyzed on the national and regional level for minority, non-minority, and total enrollments. Districts are partitioned in the following fashion: those with 0-15%, 16-30%, 31-45%, 46-60%, 61-75%, and over 75% of their total revenue coming from Title I Award money.

Percent Burden: Participation rates for minority, non-minority, and all pupils are related to the financial strain a district's educational system places on its average resident. This analysis, done for the nation and for the four regions, places districts into the following six categories: those for which the average expenditure per pupil is 0-10%, 11-20%, 21-30%, 31-40%, 41-50%, and over 50% of the per capita income. The parameter for the figures - called the Burden Rate - is roughly the share of the average person's income which goes to education considerations.

Percent Poverty - $3,000+: The effect of income on special education participation rates is further analyzed in these figures and in the five figures which follow. Minority, non-minority, and total rates are plotted for the regions and the nation. In these five graphs, only districts with per capita incomes greater than $3,000 are considered and are divided into the following categories: districts (with per capita incomes greater than $3,000) with 0-5%, 6-10%, 11-15%, 16-25%, and over 25% of their population living in poverty. The motivation for these five graphs and the five that follow is to contrast districts which have fairly uniform economic distribution to those which have pockets of high or low income.

Percent Poverty - $3,000-: The format and content of these figures follows that of all the figures with one exception: these figures only consider districts with average per capita incomes less than $3,000. Districts are partitioned as follows: those (with per capita incomes less than $3,000) which have 0-5%, 6-10%, 11-15%, 16-25%, and over 25% of their populations living in poverty.

# Percent Special Education
# Participation by Percent Poverty:
# Summary Information

## Parameter:

% Poverty is defined to be the number of people below the poverty level divided by the total district population. It serves as a measure of the financial status of a district. In 1970 the average percent poverty was 12%, with a 30% average for minorities.

## General Observations:

National Trends: As the percentage of people in districts living below poverty increases, participation in special education increases. This trend holds for minority and total enrollments but not for non-minority pupils. Especially striking are the rises in minorities' participation in EMR and Other programs as poverty increases. Conversely, minorities' involvement in Special Disabilities declines as poverty increases. These trends in minority participation are reflected in trends for the total participation. For non-minority students, trends in Other, EMR, and Special Disabilities programs follow minority trends but are not as pronounced. Finally, minority, non-minority, and total enrollments' participation in TMR are not sensitive to the extent of poverty in districts.

One final point should be made about differences in minority and non-minority participation. While the same general trends in EMR, Other, and Special Disabilities hold for minorities and non-minorities, total participation patterns are quite different. As districts become poorer, minority pupils participate in special education at a higher rate while non-minority pupils' participation in total special education is unaffected until very poor districts (with over 25% poverty) are considered. For minority students, participation in overall special education (in particular, in EMR and Other programs) increases as poverty increases while the rate at which minority pupils are serviced by Special Disability programs declines as poverty becomes more prevalent; for non-minority students, the overall participation rate is nearly constant but participation in the component programs shifts from Special Disability programs to EMR and Other programs as poverty increases. This difference in minority and non-minority participation holds not only for Percent Poverty but for most of the parameters analyzed. Minority participation in overall special education (as well as in Other, EMR and Special Disability programs) is sensitive to social and economic conditions. For non-minority pupils, the impact of socio-economic surroundings causes a redistribution of enrollments in the components of special education but not much change in non-minority participation in overall special education.

Northeast Regional Trends: Although there appear to be a few trends in participation as poverty increases in districts in the Northeast, none are supported by high F Ratios. Therefore, there is a good chance that the trends we observe are due to chance fluctuations.

Midwest Regional Trends: Again, all apparent trends in this region have a good chance, according to the F test, resulting from random variations.

South Regional Trends: In the South, participation in Special Disability programs for minority, non-minority, and total enrollments decreases significantly as poverty increases in districts. Also, EMR participation for minority and total enrollments increases as poverty increases.

West Regional Trends: As poverty increases in the West's districts, EMR participation rises and Special Disabilities participation declines. Any other apparent trends have a significant probability, according to the F test, of resulting from chance variations.

AUG 04, 1975

# PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY

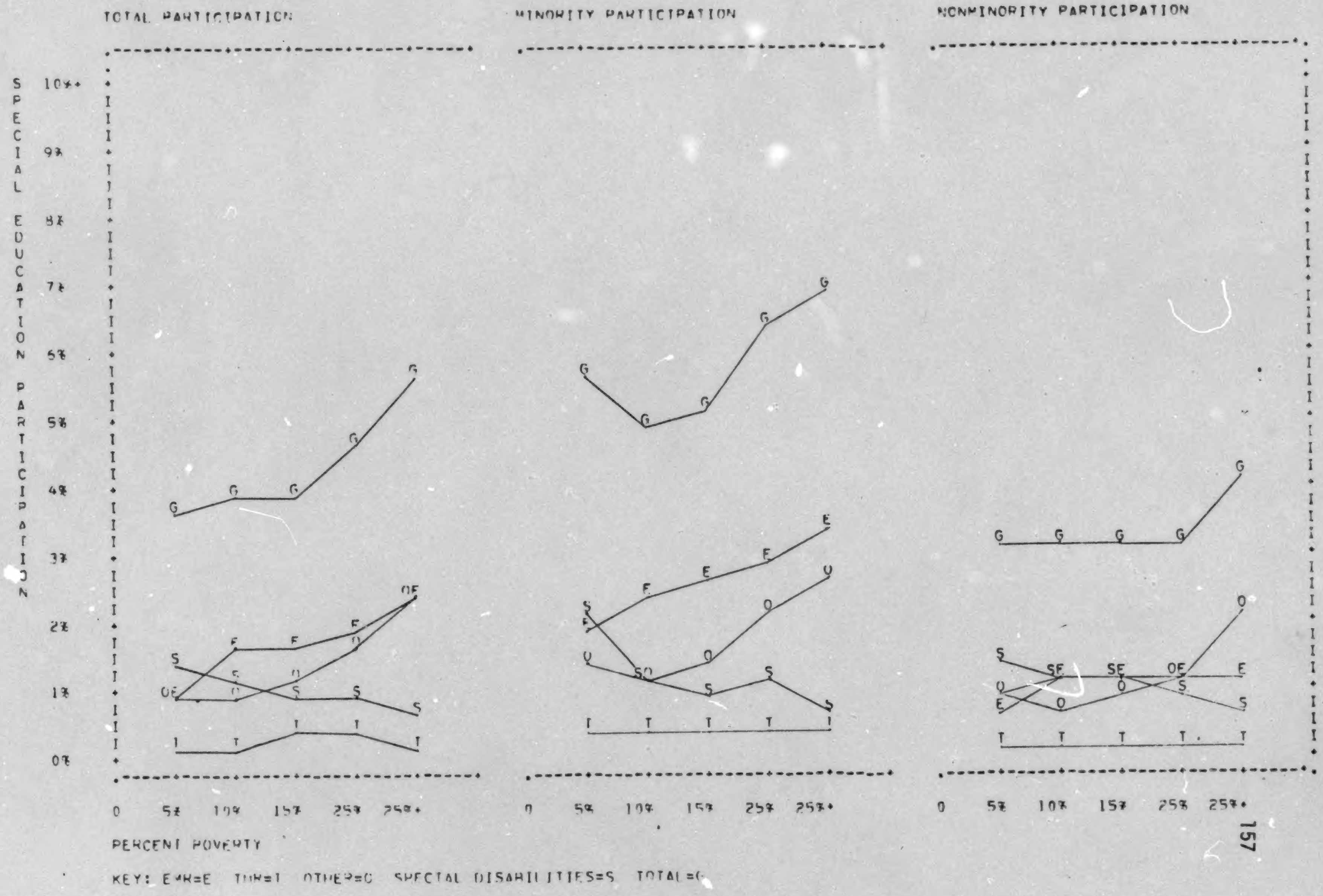
HEW/OASPE

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION--- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.9 | 0.2 | 1.0 | 1.5 | 3.6 | 1.9 | 0.3 | 1.5 | 2.1 | 5.7 | 0.7 | 0.2 | 0.9 | 1.4 | 3.2 | 259 |
| 06-10% POVERTY | 1.6 | 0.2 | 0.9 | 1.1 | 3.8 | 2.5 | 0.3 | 1.1 | 1.1 | 5.0 | 1.0 | 0.2 | 0.7 | 1.1 | 3.1 | 385 |
| 11-15% POVERTY | 1.7 | 0.3 | 1.1 | 1.0 | 4.0 | 2.5 | 0.3 | 1.4 | 0.9 | 5.1 | 1.1 | 0.2 | 0.8 | 1.0 | 3.1 | 299 |
| 16-25% POVERTY | 1.9 | 0.3 | 1.6 | 0.9 | 4.6 | 2.8 | 0.3 | 2.1 | 1.0 | 6.3 | 1.1 | 0.2 | 1.1 | 0.8 | 3.2 | 320 |
| OVER 25% POVERTY | 2.4 | 0.2 | 2.5 | 0.6 | 5.7 | 3.3 | 0.3 | 2.7 | 0.7 | 6.9 | 1.2 | 0.1 | 2.2 | 0.5 | 4.0 | 279 |
| F-RATIO | 26.43 | 3.35 | 9.61 | 10.99 | 9.34 | 14.71 | 3.10 | 5.75 | 9.69 | 7.27 | 7.43 | 5.37 | 4.59 | 14.96 | 0.99 | |
| SIGNIFICANCE % | 99.99 | 99.02 | 99.99 | 99.99 | 99.99 | 99.99 | 98.52 | 99.97 | 99.99 | 99.90 | 99.99 | 99.95 | 99.86 | 99.99 | 58.57 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.0 | 0.2 | 1.0 | 1.3 | 3.4 | 2.2 | 0.2 | 2.0 | 1.8 | 6.1 | 0.7 | 0.2 | 0.7 | 1.2 | 2.7 | 69 |
| 06-10% POVERTY | 1.8 | 0.4 | 1.3 | 0.7 | 4.3 | 2.5 | 0.4 | 2.2 | 0.7 | 5.7 | 1.2 | 0.4 | 0.6 | 0.8 | 3.0 | 50 |
| 11-15% POVERTY | 1.0 | 0.3 | 1.0 | 0.6 | 2.9 | 1.2 | 0.3 | 1.2 | 0.6 | 3.3 | 0.7 | 0.3 | 0.6 | 0.7 | 2.2 | 17 |
| 16-25% POVERTY | 2.0 | 0.3 | 0.4 | 0.8 | 3.5 | 2.1 | 0.3 | 0.4 | 0.8 | 3.7 | 1.2 | 0.4 | 0.4 | 0.8 | 2.7 | 3 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 11.79 | 3.76 | 0.29 | 1.71 | 0.11 | 0.50 | 4.89 | 0.58 | 2.12 | 0.76 | 9.01 | 3.10 | 0.35 | 1.38 | 0.06 | |
| SIGNIFICANCE % | 99.99 | 98.76 | 16.36 | 83.25 | 5.22 | 31.54 | 99.67 | 36.53 | 90.02 | 47.88 | 99.99 | 97.17 | 21.06 | 75.10 | 2.24 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.3 | 0.3 | 0.5 | 0.9 | 3.4 | 3.0 | 0.3 | 1.8 | 0.9 | 5.9 | 1.0 | 0.3 | 0.7 | 0.8 | 2.8 | 67 |
| 06-10% POVERTY | 2.1 | 0.2 | 0.7 | 1.3 | 4.3 | 3.0 | 0.2 | 0.7 | 1.4 | 5.3 | 1.5 | 0.2 | 0.6 | 1.3 | 3.6 | 86 |
| 11-15% POVERTY | 2.9 | 0.2 | 0.7 | 0.8 | 4.6 | 3.2 | 0.1 | 0.7 | 0.5 | 4.5 | 2.5 | 0.3 | 0.8 | 1.3 | 4.8 | 23 |
| 16-25% POVERTY | 1.3 | 0.3 | 1.8 | 1.0 | 4.5 | 1.5 | 0.4 | 0.7 | 0.4 | 2.9 | 1.0 | 0.3 | 4.0 | 2.5 | 7.8 | 11 |
| OVER 25% POVERTY | 3.4 | 0.0 | 3.0 | 0.5 | 6.9 | 5.1 | 0.0 | 3.2 | 0.6 | 9.0 | 1.6 | 0.1 | 2.9 | 0.3 | 4.9 | 15 |
| F-RATIO | 1.93 | 1.65 | 2.35 | 2.11 | 1.24 | 0.97 | 2.66 | 2.03 | 1.25 | 1.03 | 2.17 | 1.51 | 1.51 | 2.30 | 1.12 | |
| SIGNIFICANCE % | 87.68 | 83.78 | 94.50 | 92.03 | 70.61 | 57.56 | 96.67 | 90.98 | 71.16 | 60.43 | 92.75 | 80.01 | 80.03 | 94.11 | 65.33 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.8 | 0.3 | 0.7 | 1.9 | 3.7 | 1.9 | 0.4 | 1.0 | 3.8 | 7.1 | 0.6 | 0.3 | 0.7 | 1.6 | 3.2 | 34 |
| 06-10% POVERTY | 1.5 | 0.2 | 0.9 | 1.4 | 4.0 | 3.2 | 0.4 | 1.4 | 1.4 | 6.4 | 0.9 | 0.2 | 0.8 | 1.3 | 3.2 | 100 |
| 11-15% POVERTY | 2.0 | 0.3 | 1.2 | 1.1 | 4.6 | 3.6 | 0.4 | 1.7 | 1.1 | 6.8 | 1.1 | 0.2 | 0.9 | 1.1 | 3.3 | 195 |
| 16-25% POVERTY | 1.9 | 0.3 | 1.7 | 0.9 | 4.8 | 3.0 | 0.4 | 2.3 | 1.1 | 6.8 | 1.1 | 0.2 | 1.2 | 0.8 | 3.3 | 258 |
| OVER 25% POVERTY | 2.5 | 0.2 | 2.5 | 0.7 | 5.9 | 3.4 | 0.3 | 2.7 | 0.8 | 7.1 | 1.2 | 0.1 | 2.2 | 0.5 | 4.1 | 241 |
| F-RATIO | 8.36 | 2.30 | 3.03 | 10.22 | 1.56 | 5.30 | 3.61 | 1.43 | 12.78 | 1.92 | 3.15 | 8.11 | 1.54 | 13.52 | 0.33 | |
| SIGNIFICANCE % | 99.99 | 94.40 | 98.32 | 99.99 | 81.79 | 99.94 | 99.34 | 77.86 | 99.99 | 87.77 | 98.62 | 99.99 | 81.25 | 99.99 | 13.85 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 0.7 | 0.2 | 1.2 | 1.6 | 3.7 | 1.0 | 0.2 | 1.3 | 1.8 | 4.4 | 0.7 | 0.2 | 1.2 | 1.5 | 3.5 | 89 |
| 06-10% POVERTY | 1.1 | 0.2 | 0.9 | 0.9 | 3.0 | 1.5 | 0.3 | 0.7 | 0.9 | 3.4 | 0.8 | 0.2 | 0.9 | 0.9 | 2.8 | 149 |
| 11-15% POVERTY | 1.1 | 0.2 | 0.7 | 0.8 | 2.8 | 1.5 | 0.3 | 0.8 | 0.8 | 3.5 | 0.8 | 0.2 | 0.7 | 0.8 | 2.5 | 64 |
| 16-25% POVERTY | 1.4 | 0.2 | 0.9 | 0.5 | 3.0 | 1.9 | 0.3 | 1.2 | 0.5 | 3.8 | 0.9 | 0.1 | 0.7 | 0.5 | 2.3 | 48 |
| OVER 25% POVERTY | 1.3 | 0.2 | 1.7 | 0.3 | 3.6 | 1.4 | 0.2 | 1.9 | 0.3 | 3.9 | 0.9 | 0.2 | 0.7 | 0.4 | 2.2 | 23 |
| F-RATIO | 7.10 | 0.68 | 1.42 | 4.35 | 1.02 | 4.59 | 0.36 | 0.47 | 3.64 | 0.89 | 3.38 | 1.11 | 0.66 | 5.11 | 1.35 | |
| SIGNIFICANCE % | 99.99 | 39.04 | 77.38 | 99.78 | 60.44 | 99.84 | 16.09 | 24.19 | 99.33 | 52.89 | 99.00 | 64.90 | 37.61 | 99.92 | 74.88 | |

JUN 27, 1975

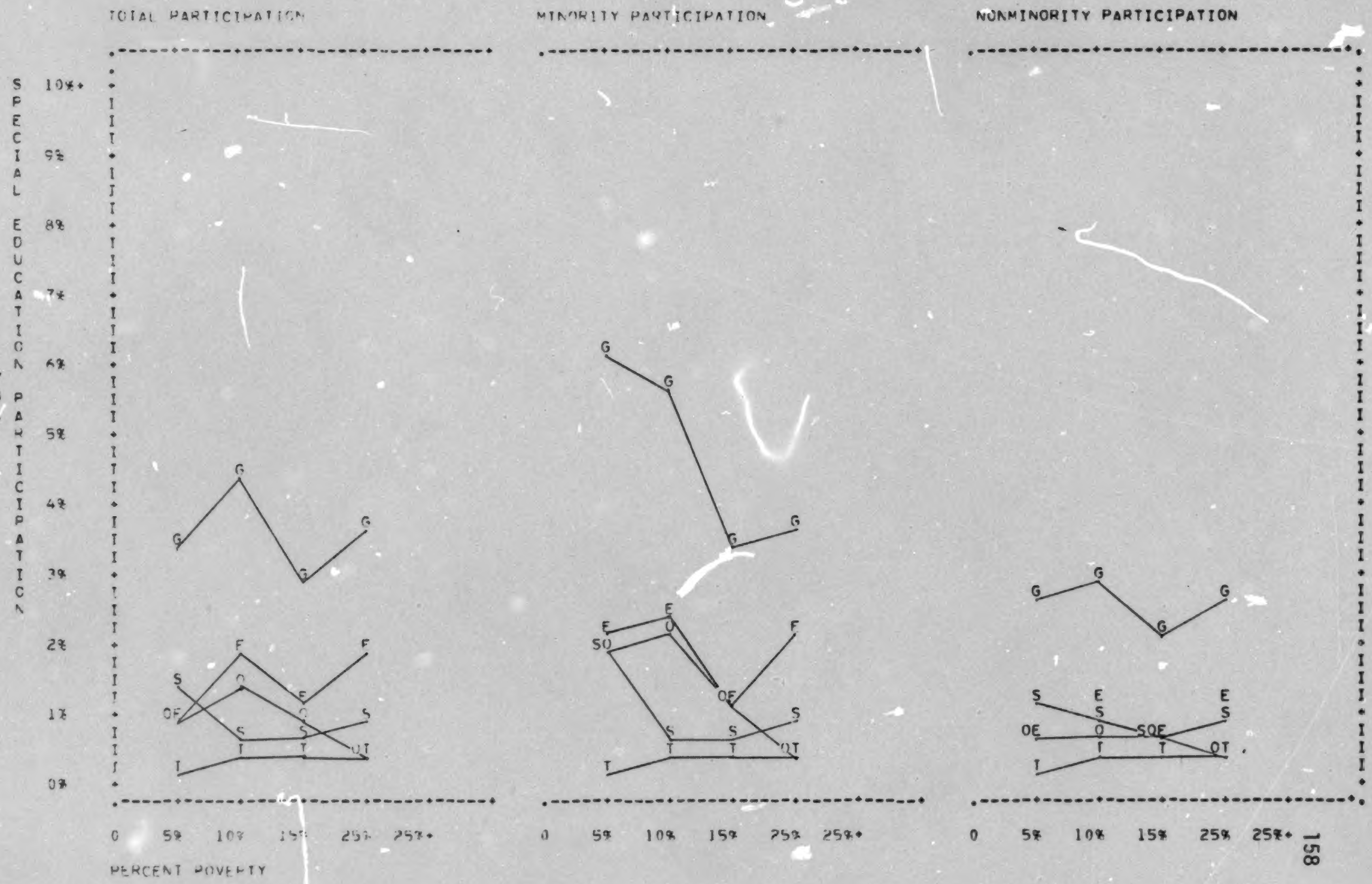
PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY

NATION



JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY HEW/OASPE

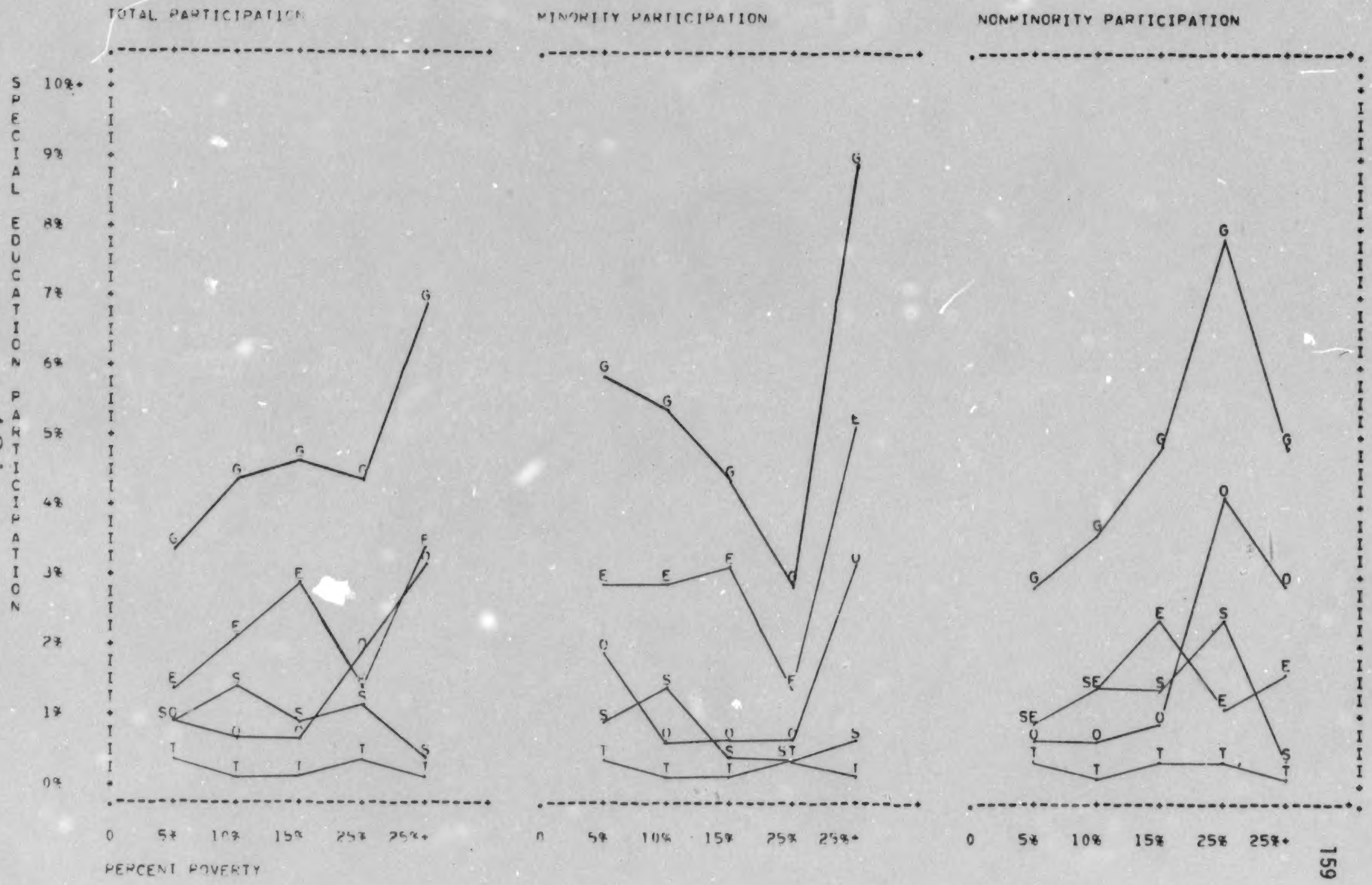
NORTHEAST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY

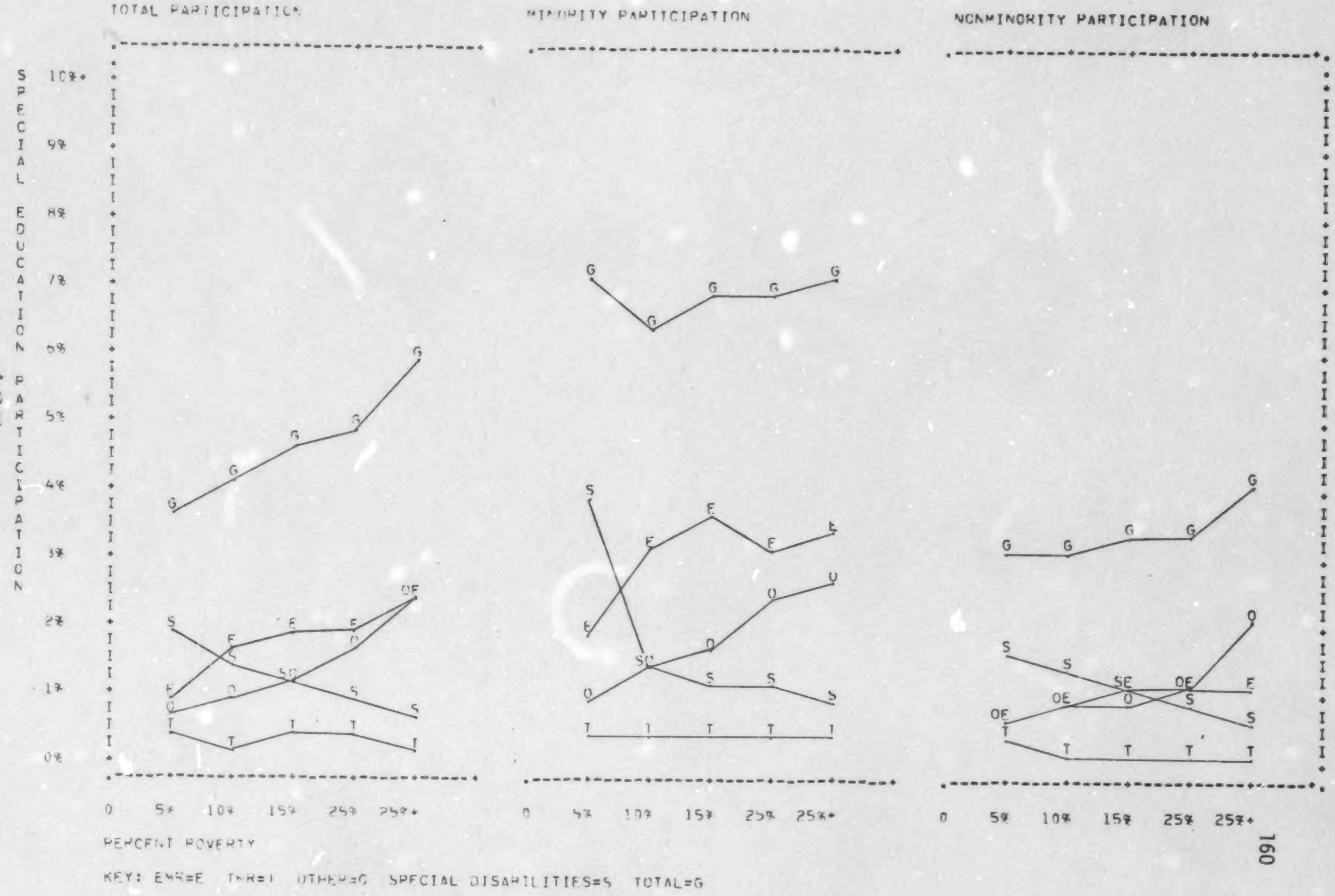
MIDWEST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

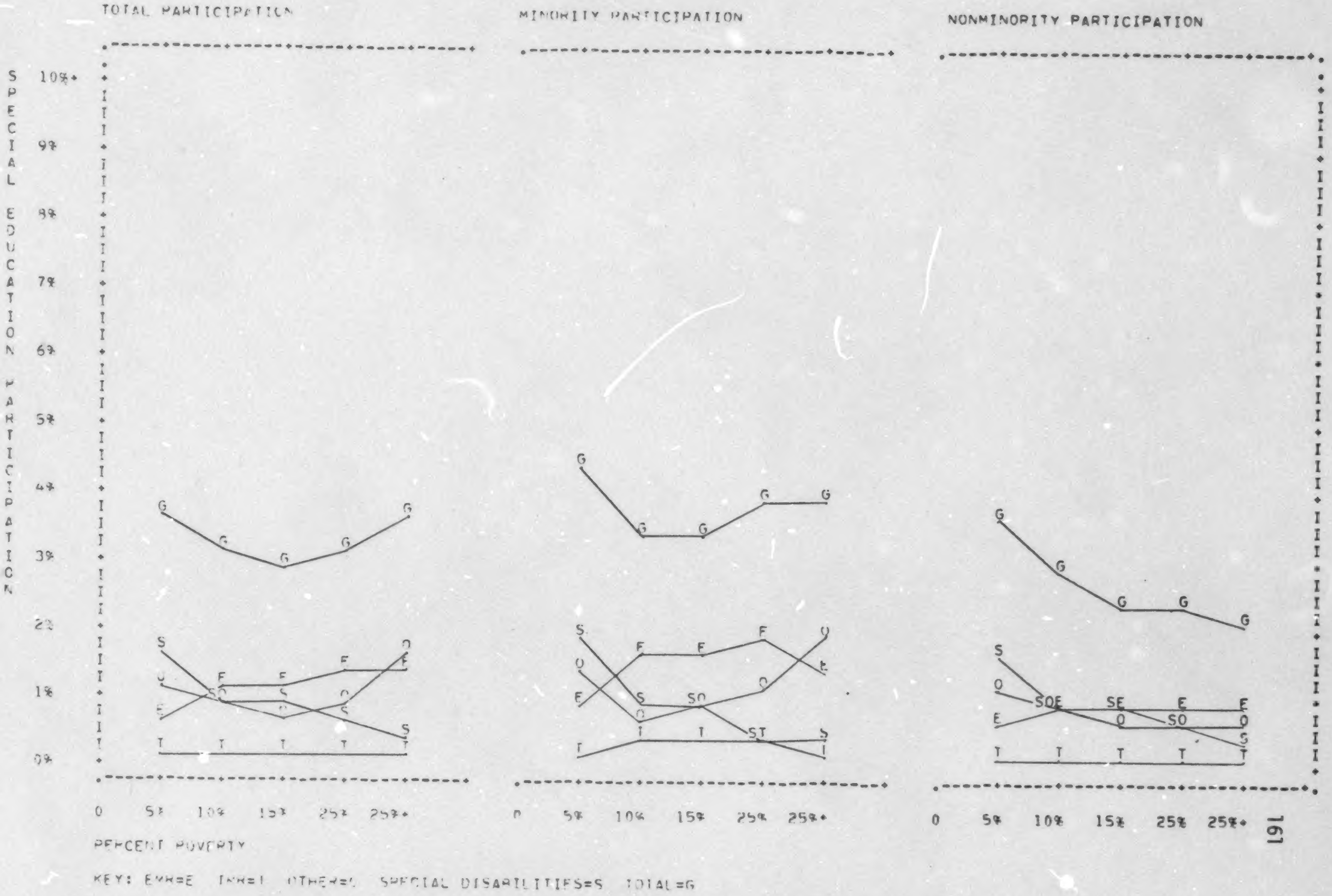
## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY

SOUTH



## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY

WEST



# Percent Special Education
# Participation by Per Capita Income:
# Summary Information

## Parameter:

Per capita income is the total income earned by people in a district divided by the total number of people living in the district. In other words, it is the average income of a district's population and is an indicator of district wealth. The average per capita income on the OCR/SDELM file is $3,151.

## General Observations:

National Trends: As per capita income in districts grows, minority and overall participation in special education decline. TMR participation is not affected by per capita income. Generally, EMR and Other programs participation decreases as per capita income increases and Special Disability participation rises. These trends hold especially for minority pupils but also for non-minority pupils as well.

Northeast Regional Trends: For all enrollments, EMR participation falls off as per capita income increases. Any other apparent trends in the Northeast have, according to the F test, a good chance of resulting from statistical variations.

Midwest Regional Trends: In the Midwest, participation in all aspects of special education seems to be independent of per capita income. Curves are either flat or fluctuate sporadically.

South Regional Trends: Many of the trends which hold nationally also appear in the South. EMR participation decreases for all enrollments as per capita income increases. Also, participation in Special Disability programs becomes more frequent as per capita income grows.

West Regional Trends: An increase in Special Disability programs as per capita income rises is the only trend in the West which is supported by a high F Ratio. All other possible trends have a significant chance of being the result of random fluctuations, according to the F test.

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PER CAPITA INCOME

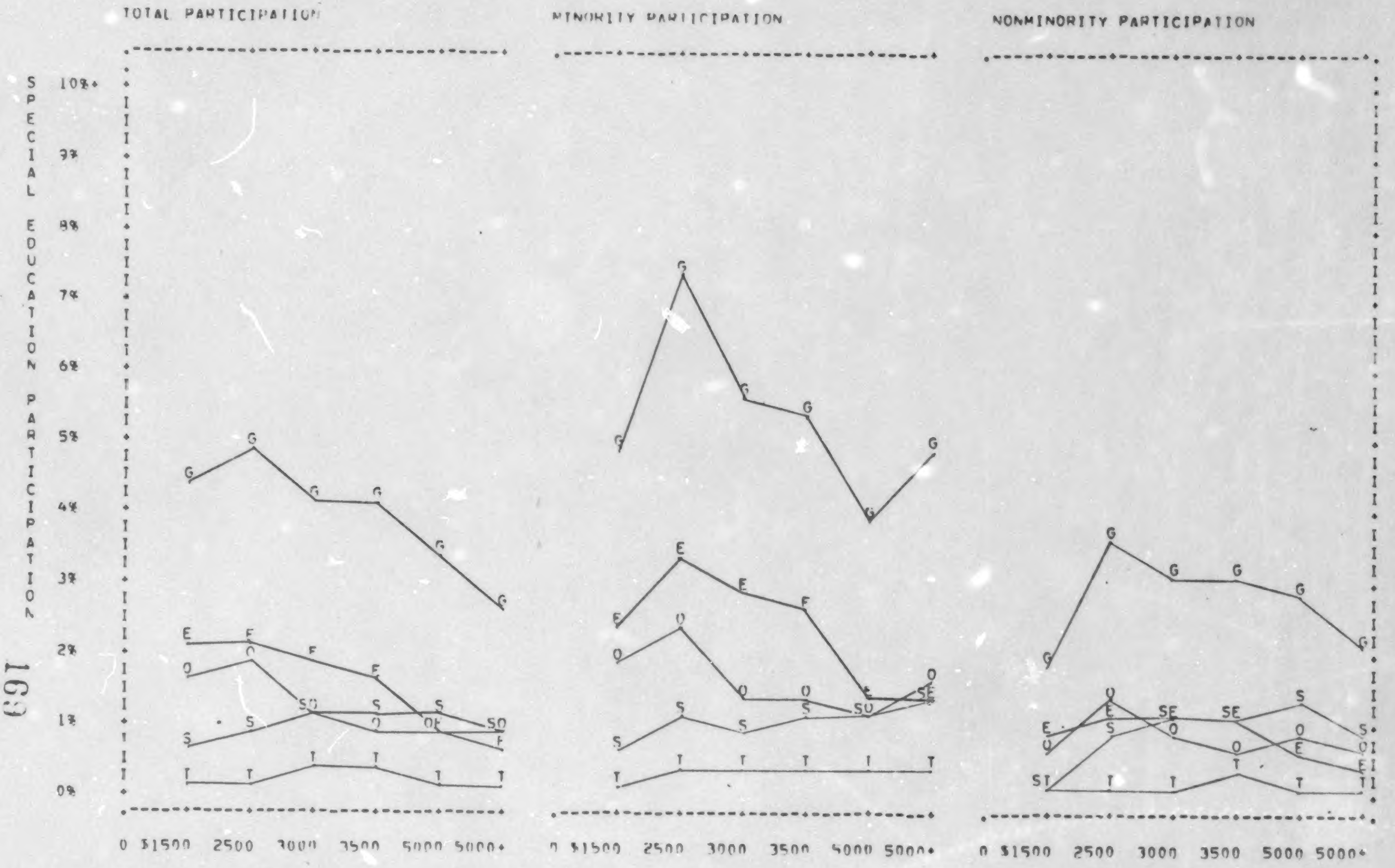
| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 2.0 | 0.2 | 1.6 | 0.5 | 4.3 | 2.3 | 0.2 | 1.8 | 0.6 | 4.9 | 1.0 | 0.1 | 0.6 | 0.2 | 1.9 | 71 |
| 1501 - 2500 DOLLARS INCOME | 2.1 | 0.2 | 1.8 | 0.9 | 5.0 | 3.5 | 0.3 | 2.4 | 1.1 | 7.3 | 1.2 | 0.2 | 1.4 | 0.8 | 3.5 | 624 |
| 2501 - 3000 DOLLARS INCOME | 1.8 | 0.3 | 1.0 | 1.1 | 4.1 | 3.0 | 0.3 | 1.4 | 1.0 | 5.7 | 1.1 | 0.2 | 0.8 | 1.1 | 3.2 | 408 |
| 3001 - 3500 DOLLARS INCOME | 1.7 | 0.3 | 0.9 | 1.2 | 4.1 | 2.7 | 0.3 | 1.3 | 1.1 | 5.4 | 1.1 | 0.3 | 0.7 | 1.2 | 3.2 | 261 |
| 3501 - 5000 DOLLARS INCOME | 0.9 | 0.2 | 0.9 | 1.2 | 3.3 | 1.4 | 0.3 | 1.1 | 1.1 | 3.8 | 0.6 | 0.2 | 0.9 | 1.3 | 2.9 | 158 |
| OVER 5000 DOLLARS INCOME | 0.7 | 0.2 | 0.8 | 0.9 | 2.6 | 1.4 | 0.3 | 1.7 | 1.4 | 4.8 | 0.5 | 0.2 | 0.7 | 0.8 | 2.1 | 20 |
| F-RATIO | 17.19 | 2.55 | 6.04 | 6.09 | 5.19 | 15.95 | 2.02 | 3.59 | 6.27 | 6.35 | 6.57 | 4.60 | 3.38 | 9.52 | 0.66 | |
| SIGNIFICANCE % | 99.99 | 97.41 | 99.99 | 99.99 | 99.98 | 99.99 | 92.76 | 99.65 | 99.99 | 99.99 | 99.99 | 99.94 | 99.49 | 99.99 | 34.68 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| 1501 - 2500 DOLLARS INCOME | 1.8 | 0.3 | 0.5 | 1.0 | 3.6 | 2.1 | 0.3 | 0.5 | 0.9 | 3.8 | 1.2 | 0.2 | 0.6 | 1.3 | 3.3 | 5 |
| 2501 - 3000 DOLLARS INCOME | 1.6 | 0.3 | 0.7 | 0.7 | 3.3 | 2.7 | 0.3 | 1.1 | 0.6 | 4.7 | 1.1 | 0.3 | 0.6 | 0.7 | 2.6 | 40 |
| 3001 - 3500 DOLLARS INCOME | 1.3 | 0.4 | 1.3 | 0.7 | 4.2 | 2.5 | 0.4 | 2.1 | 0.6 | 5.6 | 1.2 | 0.4 | 0.6 | 0.7 | 2.9 | 46 |
| 3501 - 5000 DOLLARS INCOME | 0.9 | 0.2 | 1.1 | 0.9 | 3.1 | 1.1 | 0.2 | 1.3 | 0.8 | 3.5 | 0.6 | 0.2 | 0.7 | 1.0 | 2.5 | 40 |
| OVER 5000 DOLLARS INCOME | 0.7 | 0.2 | 0.9 | 0.8 | 2.7 | 1.3 | 0.2 | 1.7 | 1.0 | 4.2 | 0.5 | 0.2 | 0.5 | 0.8 | 2.0 | 8 |
| F-RATIO | 7.76 | 1.37 | 0.39 | 2.57 | 0.74 | 5.47 | 1.57 | 0.76 | 2.61 | 0.93 | 7.57 | 1.16 | 0.26 | 2.33 | 0.74 | |
| SIGNIFICANCE % | 99.99 | 75.32 | 18.14 | 95.99 | 43.41 | 99.93 | 81.59 | 44.69 | 96.22 | 55.19 | 99.99 | 66.82 | 9.95 | 94.17 | 43.29 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 0.3 | 0.0 | 2.2 | 0.0 | 2.6 | 0.5 | 0.1 | 2.2 | 0.0 | 2.8 | 0.0 | 0.0 | 2.2 | 0.0 | 2.2 | 3 |
| 1501 - 2500 DOLLARS INCOME | 2.1 | 0.2 | 1.6 | 1.0 | 4.8 | 2.9 | 0.2 | 1.4 | 0.7 | 5.2 | 1.5 | 0.1 | 1.7 | 1.2 | 4.5 | 37 |
| 2501 - 3000 DOLLARS INCOME | 2.4 | 0.2 | 0.7 | 0.8 | 4.0 | 3.2 | 0.2 | 0.8 | 0.6 | 4.7 | 1.9 | 0.2 | 0.6 | 0.9 | 3.6 | 56 |
| 3001 - 3500 DOLLARS INCOME | 2.1 | 0.3 | 0.7 | 1.3 | 4.3 | 3.0 | 0.2 | 0.8 | 1.4 | 5.4 | 1.4 | 0.3 | 0.6 | 1.3 | 3.6 | 80 |
| 3501 - 5000 DOLLARS INCOME | 0.8 | 0.1 | 1.1 | 0.6 | 2.6 | 1.6 | 0.1 | 1.8 | 0.3 | 3.8 | 0.5 | 0.1 | 0.9 | 0.7 | 2.3 | 21 |
| OVER 5000 DOLLARS INCOME | 0.9 | 0.3 | 0.7 | 1.1 | 3.0 | 2.0 | 0.4 | 1.2 | 2.0 | 5.6 | 0.5 | 0.3 | 0.6 | 0.8 | 2.2 | 5 |
| F-RATIO | 1.27 | 0.31 | 1.22 | 0.76 | 0.72 | 1.11 | 0.79 | 0.94 | 0.64 | 0.79 | 1.34 | 0.29 | 0.97 | 0.78 | 0.58 | |
| SIGNIFICANCE % | 72.26 | 9.23 | 69.91 | 41.52 | 38.22 | 64.21 | 43.76 | 54.02 | 33.08 | 43.96 | 75.27 | 8.06 | 55.92 | 43.08 | 27.85 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 2.1 | 0.2 | 1.5 | 0.6 | 4.3 | 2.4 | 0.2 | 1.7 | 0.6 | 4.9 | 1.0 | 0.1 | 0.5 | 0.2 | 1.8 | 59 |
| 1501 - 2500 DOLLARS INCOME | 2.2 | 0.2 | 1.9 | 0.9 | 5.2 | 3.8 | 0.3 | 2.7 | 1.1 | 8.0 | 1.2 | 0.2 | 1.4 | 0.8 | 3.5 | 493 |
| 2501 - 3000 DOLLARS INCOME | 1.9 | 0.3 | 1.2 | 1.1 | 4.5 | 3.4 | 0.4 | 1.7 | 1.1 | 6.6 | 1.1 | 0.2 | 0.8 | 1.1 | 3.3 | 188 |
| 3001 - 3500 DOLLARS INCOME | 1.4 | 0.3 | 1.1 | 1.3 | 4.0 | 2.7 | 0.3 | 1.8 | 1.2 | 6.0 | 0.8 | 0.2 | 0.8 | 1.3 | 3.1 | 63 |
| 3501 - 5000 DOLLARS INCOME | 1.0 | 0.2 | 0.9 | 2.1 | 4.2 | 2.2 | 0.3 | 1.1 | 2.5 | 6.1 | 0.6 | 0.2 | 0.8 | 2.0 | 3.6 | 22 |
| OVER 5000 DOLLARS INCOME | 0.5 | 0.3 | 0.8 | 0.7 | 2.4 | 1.5 | 0.3 | 1.5 | 1.4 | 4.7 | 0.4 | 0.3 | 0.7 | 0.6 | 2.0 | 3 |
| F-RATIO | 5.32 | 3.42 | 1.49 | 6.96 | 0.72 | 5.70 | 4.51 | 0.61 | 9.84 | 1.83 | 3.38 | 7.10 | 0.93 | 10.33 | 0.41 | |
| SIGNIFICANCE % | 99.98 | 99.51 | 81.08 | 99.99 | 39.03 | 99.99 | 99.93 | 30.81 | 99.99 | 89.70 | 99.47 | 99.99 | 53.89 | 99.99 | 15.72 | |
| WEST | | | | | | | | | | | | | | | | |
| 0 - 1500 DOLLARS INCOME | 1.0 | 0.2 | 2.6 | 0.3 | 4.1 | 1.0 | 0.2 | 2.8 | 0.3 | 4.3 | 1.0 | 0.2 | 1.0 | 0.2 | 2.4 | 9 |
| 1501 - 2500 DOLLARS INCOME | 1.2 | 0.2 | 1.5 | 0.7 | 3.6 | 1.7 | 0.3 | 1.5 | 0.6 | 4.1 | 0.9 | 0.1 | 1.4 | 0.8 | 3.3 | 89 |
| 2501 - 3000 DOLLARS INCOME | 1.1 | 0.2 | 1.0 | 1.1 | 3.3 | 1.5 | 0.2 | 0.9 | 1.0 | 3.7 | 0.9 | 0.2 | 1.0 | 1.2 | 3.2 | 124 |
| 3001 - 3500 DOLLARS INCOME | 1.1 | 0.2 | 0.9 | 1.0 | 3.1 | 1.5 | 0.2 | 0.9 | 1.0 | 3.6 | 0.9 | 0.2 | 0.9 | 1.0 | 2.9 | 72 |
| 3501 - 5000 DOLLARS INCOME | 0.9 | 0.2 | 0.8 | 1.1 | 3.0 | 1.4 | 0.3 | 0.7 | 1.0 | 3.4 | 0.6 | 0.2 | 0.9 | 1.1 | 2.8 | 75 |
| OVER 5000 DOLLARS INCOME | 0.9 | 0.0 | 1.1 | 1.3 | 3.3 | 0.9 | 0.1 | 3.1 | 2.1 | 6.1 | 0.9 | 0.0 | 0.7 | 1.1 | 2.8 | 4 |
| F-RATIO | 2.11 | 0.23 | 2.50 | 2.47 | 0.54 | 1.33 | 0.31 | 1.35 | 1.69 | 0.38 | 1.71 | 1.83 | 0.87 | 3.15 | 1.01 | |
| SIGNIFICANCE % | 93.70 | 5.42 | 97.01 | 96.84 | 25.00 | 75.18 | 9.38 | 76.04 | 86.47 | 13.75 | 86.92 | 89.50 | 49.57 | 99.14 | 58.94 | |

JUN 27, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PER CAPITA INCOME

HEW/OASPE

NATION



PER CAPITA INCOME

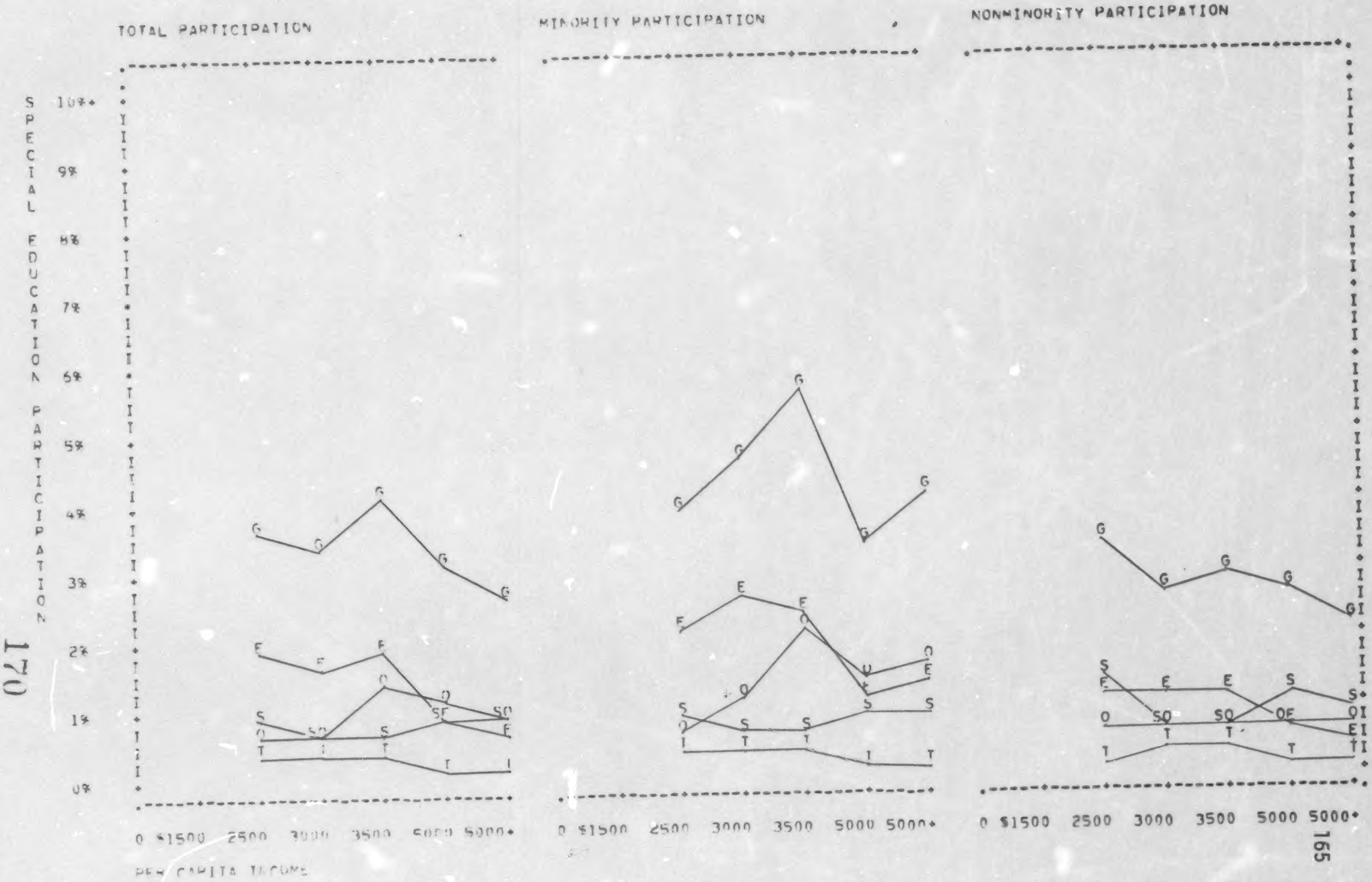
KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975

HEW/OASPE

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PER CAPITA INCOME

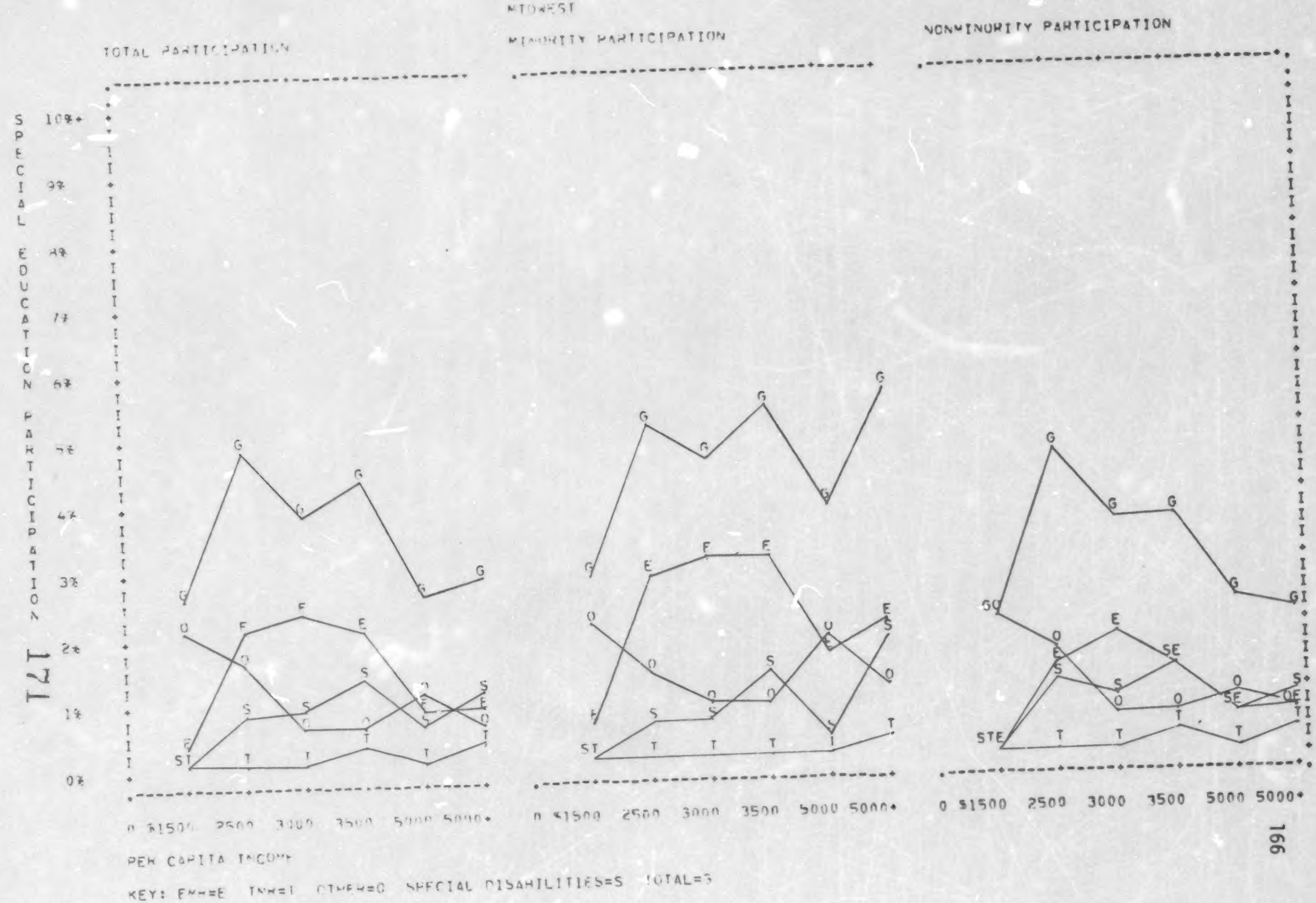
NORTHEAST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PER CAPITA INCOME HEW/OASPE

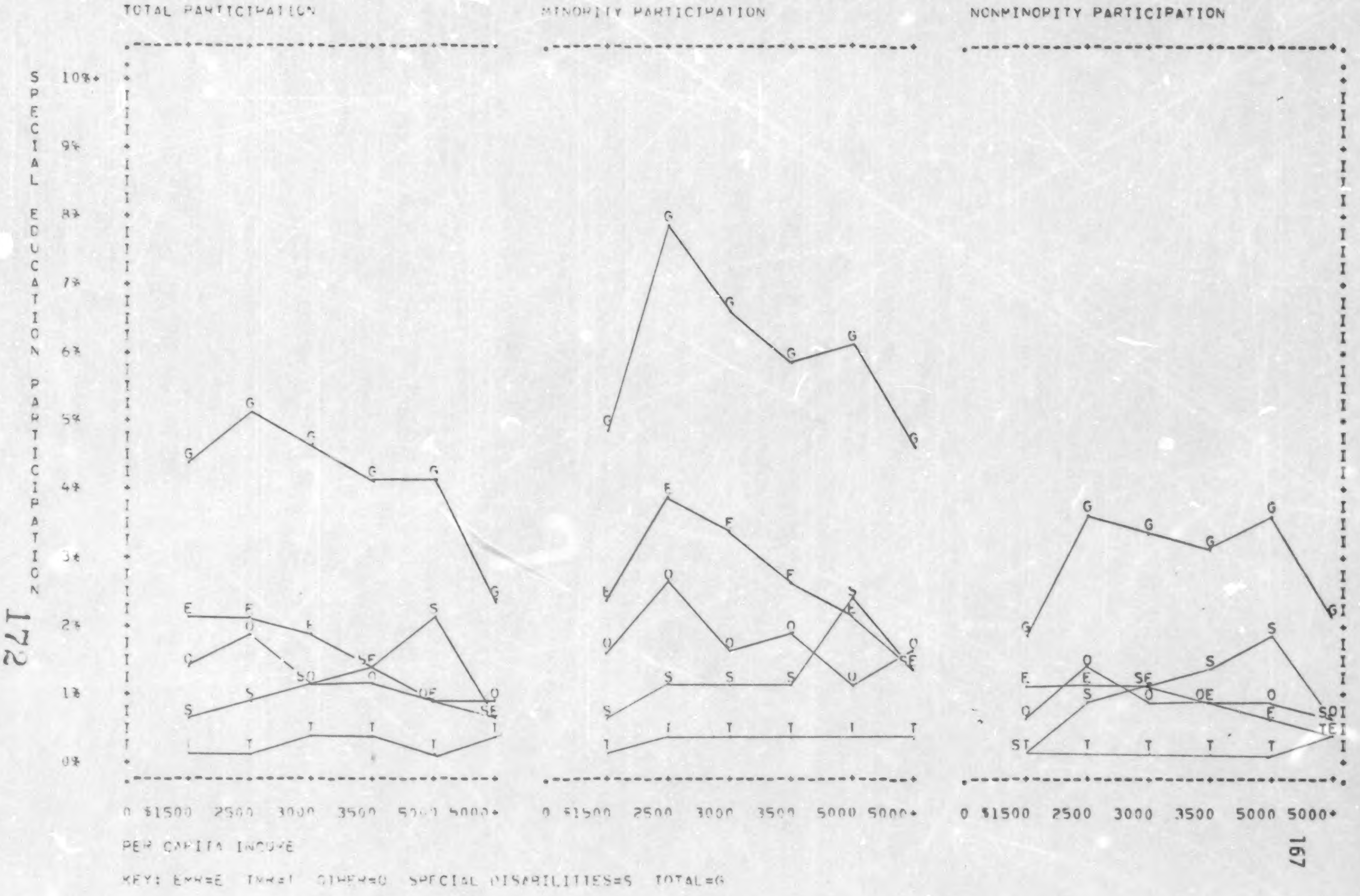
MIDWEST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PER CAPITA INCOME HEW/OASPE

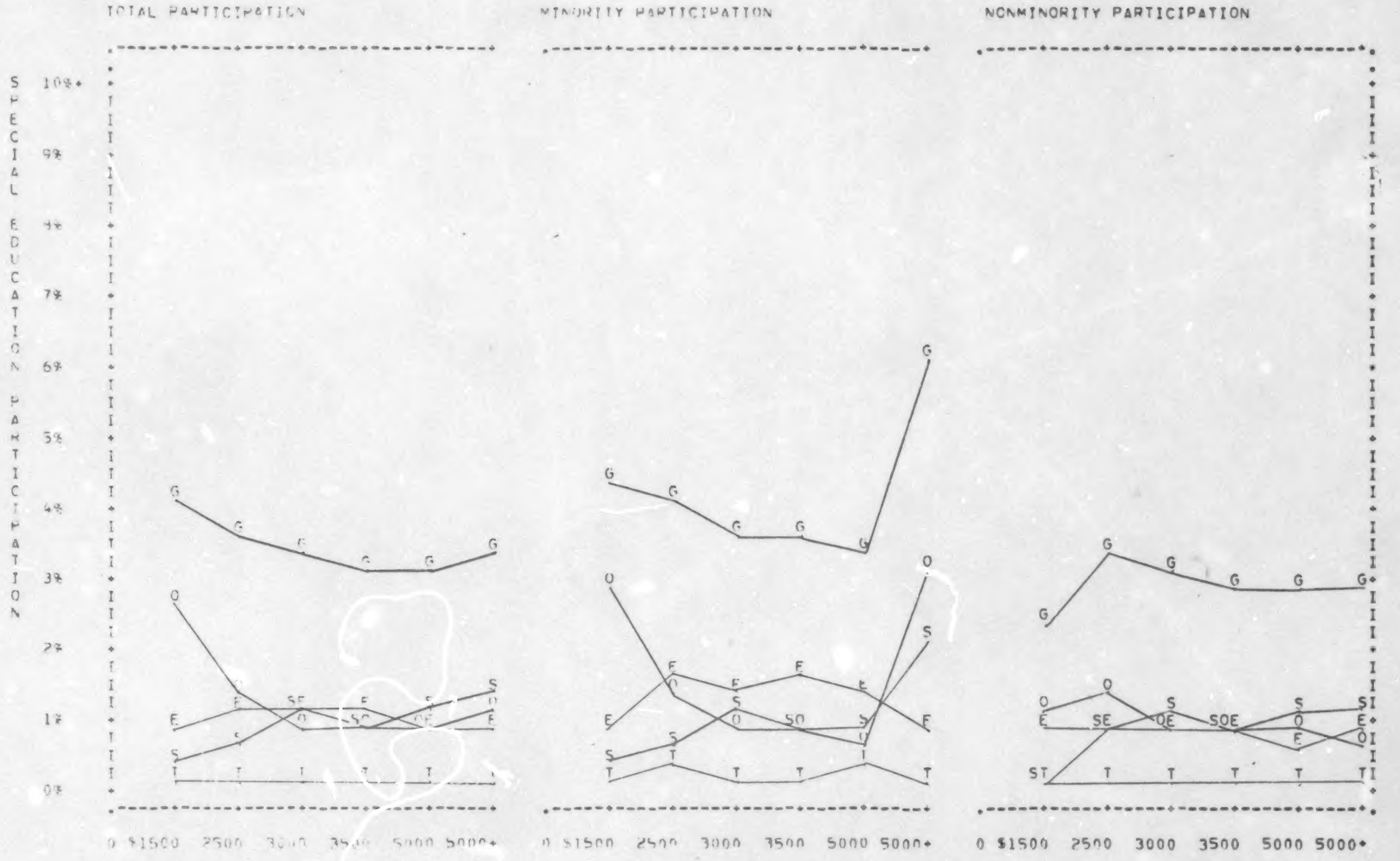
SOUTH



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PER CAPITA INCOME HEW/OASPE

WEST



PER CAPITA INCOME

KEY: EXR=E TXR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

## Percent Special Education
## Participation by Percent Urban:
## Summary Information

### Parameter:

Percent Urban is the percentage of a district's population inhabiting urban areas. Percent Urban aids in depicting a districts demographic character. By analyzing this parameter, differences in special education participation in urban and rural areas may become apparent.

### General Observations:

National Trends: As with many of the parameters examined, the behavior of our nation's total enrollment is dictated by the behavior of the country's minority enrollment. In this case, minority participation in overall special education declines as districts become more urbanized. However, non-minority participation is not sensitive to urbanization, remaining essentially constant, except in very urban (over 95%) districts.

For all enrollments, TMR participation appears to be independent of urbanization. The participation of the country's total enrollment in EMR and Other programs declines as districts become urbanized; these trends are primarily associated with the behavior of minority pupils, as no trends in EMR and Other are found for non-minority students.

All student participation in Special Disabilities programs rises as more urbanized districts are considered. The F test leaves little doubt that these trends for minority, non-minority, and total enrollments are actual.

Northeast Regional Trends: In the Northeast, no clear trends are detected. Moreover, almost all districts in this region have over 95% urban population so the small number of districts in other parameter groups obscures possible trends.

Midwest Regional Trends: The only trends observed in the Midwest which are supported by the F test involve participation in Special Disabilities programs. Both minority and non-minority enrollments participation in Special Disabilities programs tend to rise as districts become more urbanized.

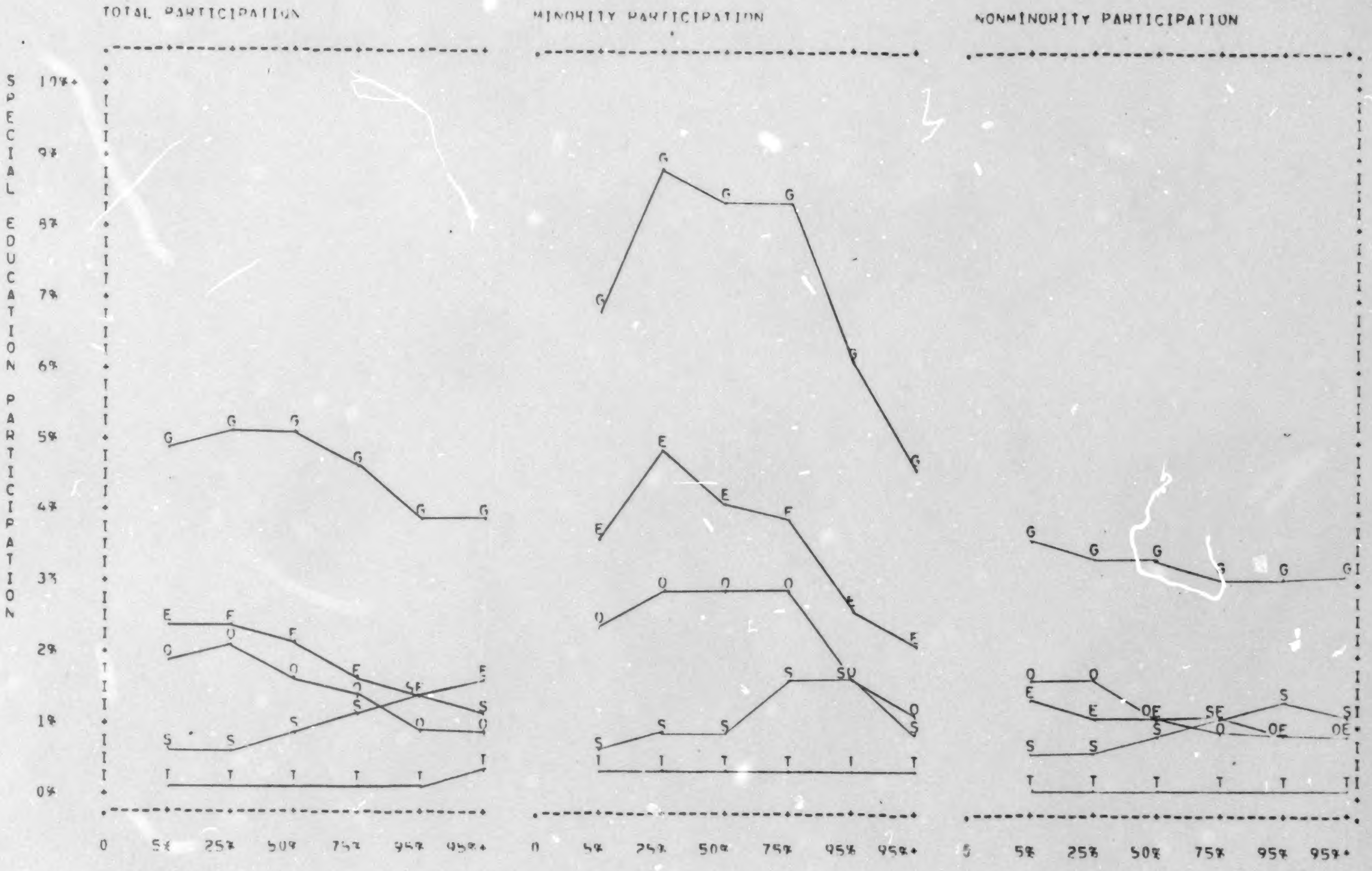
South Regional Trends: Many of the trends observed in the South echo those for the nation. Participation in EMR for minority, non-minority, and total enrollments declines as urbanization increases. Participation in TMR is not sensitive to urbanization. Finally, participation in Special Disabilities programs becomes more frequent as more urbanized districts are examined.

West Regional Trends: A general decrease in minority and non-minority participation in Other programs is found in the West as urbanization in districts increases. Also, participation in TMR remains constant as urbanization rises.

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- EMR | TMR | OTHER | DISAB | TOTAL | --MINORITY % PARTICIPATION-- EMR | TMR | OTHER | DISAB | TOTAL | NONMINORITY % PARTICIPATION EMR | TMR | OTHER | DISAB | TOTAL | NUM DIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NATION | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 2.3 | 0.2 | 1.9 | 0.6 | 4.9 | 3.7 | 0.3 | 2.3 | 0.5 | 6.9 | 1.3 | 0.1 | 1.6 | 0.6 | 3.6 | 225 |
| 06-25% URBAN POPULATION | 2.3 | 0.2 | 2.0 | 0.7 | 5.1 | 4.8 | 0.3 | 2.9 | 0.9 | 8.8 | 1.1 | 0.1 | 1.6 | 0.5 | 3.4 | 104 |
| 26-50% URBAN POPULATION | 2.1 | 0.2 | 1.7 | 0.9 | 5.0 | 4.1 | 0.3 | 3.0 | 1.0 | 8.4 | 1.2 | 0.2 | 1.2 | 0.9 | 3.5 | 186 |
| 51-75% URBAN POPULATION | 1.7 | 0.2 | 1.4 | 1.2 | 4.5 | 3.9 | 0.3 | 2.8 | 1.5 | 8.5 | 1.0 | 0.2 | 0.9 | 1.1 | 3.2 | 219 |
| 76-95% URBAN POPULATION | 1.3 | 0.2 | 1.0 | 1.3 | 3.9 | 2.6 | 0.3 | 1.6 | 1.5 | 6.0 | 0.9 | 0.2 | 0.8 | 1.3 | 3.1 | 304 |
| OVER 95% URBAN POPULATION | 1.5 | 0.3 | 1.0 | 1.1 | 3.8 | 2.2 | 0.3 | 1.2 | 1.0 | 4.6 | 1.0 | 0.2 | 0.8 | 1.1 | 3.2 | 504 |
| F-RATIO | 8.40 | 2.23 | 3.32 | 10.78 | 2.36 | [illegible] | 3.27 | 3.64 | 6.81 | 7.01 | 1.46 | 5.61 | 1.92 | 13.54 | 0.80 | |
| SIGNIFICANCE % | 99.99 | 95.13 | 99.42 | 99.99 | 96.25 | 99.99 | 99.36 | 99.68 | 99.99 | 99.99 | 80.15 | 99.99 | 91.34 | 99.99 | 45.07 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 1.3 | 0.2 | 1.0 | 1.2 | 3.7 | 2.1 | 0.0 | 1.3 | 2.1 | 5.6 | 1.2 | 0.2 | 1.0 | 0.9 | 3.3 | 1 |
| 06-25% URBAN POPULATION | 1.4 | 0.0 | 1.8 | 1.9 | 5.1 | 1.2 | 0.0 | 2.8 | 2.5 | 6.5 | 1.4 | 0.0 | 1.6 | 1.9 | 4.9 | 1 |
| 26-50% URBAN POPULATION | 1.9 | 0.0 | 1.1 | 0.2 | 3.2 | 5.7 | 0.0 | 0.4 | 0.3 | 6.4 | 0.9 | 0.0 | 1.3 | 0.2 | 2.4 | 2 |
| 51-75% URBAN POPULATION | 1.1 | 0.1 | 1.1 | 0.7 | 2.9 | 2.0 | 0.1 | 1.8 | 1.0 | 4.9 | 0.9 | 0.1 | 0.9 | 0.6 | 2.5 | 9 |
| 76-95% URBAN POPULATION | 0.8 | 0.2 | 0.8 | 1.4 | 3.1 | 2.5 | 0.2 | 1.6 | 2.2 | 6.5 | 0.4 | 0.2 | 0.7 | 1.2 | 2.4 | 12 |
| OVER 95% URBAN POPULATION | 1.3 | 0.3 | 1.1 | 0.8 | 3.5 | 1.7 | 0.3 | 1.5 | 0.7 | 4.2 | 0.9 | 0.3 | 0.6 | 0.9 | 2.7 | 114 |
| F-RATIO | 1.94 | 2.32 | 0.16 | 0.44 | 0.18 | 0.78 | 2.06 | 0.20 | 0.81 | 0.42 | 2.55 | 1.98 | 0.92 | 0.36 | 0.40 | |
| SIGNIFICANCE % | 90.88 | 95.39 | 2.50 | 18.13 | 3.24 | 43.34 | 92.60 | 4.13 | 45.71 | 16.18 | 96.94 | 91.57 | 53.15 | 12.54 | 15.13 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 1.3 | 0.2 | 3.0 | 0.2 | 4.7 | 1.7 | 0.1 | 3.3 | 0.2 | 5.4 | 1.1 | 0.2 | 2.8 | [illegible] | 4.3 | 25 |
| 06-25% URBAN POPULATION | 1.1 | 0.0 | 0.4 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.4 | 0.0 | 1.5 | 1 |
| 26-50% URBAN POPULATION | 2.8 | 0.0 | 1.5 | 0.8 | 5.1 | 7.1 | 0.0 | 3.6 | 1.4 | 12.1 | 1.4 | 0.0 | 0.8 | 0.6 | 2.8 | 7 |
| 51-75% URBAN POPULATION | 1.5 | 0.2 | 0.4 | 1.6 | 3.6 | 3.6 | 0.2 | 0.7 | 2.1 | 6.5 | 1.2 | 0.2 | 0.3 | 1.5 | 3.2 | 13 |
| 76-95% URBAN POPULATION | 1.6 | 0.3 | 0.9 | 0.7 | 3.5 | 3.6 | 0.3 | 1.8 | 0.8 | 6.5 | 1.3 | 0.3 | 0.7 | 0.7 | 3.0 | 56 |
| OVER 95% URBAN POPULATION | 2.1 | 0.2 | 0.7 | 1.3 | 4.3 | 2.9 | 0.2 | 0.7 | 1.2 | 5.1 | 1.5 | 0.3 | 0.7 | 1.3 | 3.7 | 100 |
| F-RATIO | 0.64 | 0.25 | 2.63 | 1.94 | 0.08 | 0.27 | 0.34 | 2.27 | 2.61 | 0.46 | 0.34 | 0.24 | 2.21 | 1.32 | 0.10 | |
| SIGNIFICANCE % | 32.65 | 6.04 | 97.54 | 91.07 | 0.70 | 7.20 | 11.45 | 95.13 | 97.44 | 18.98 | 11.46 | 5.86 | 94.59 | [illegible] | 1.04 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 2.4 | 0.2 | 1.9 | 0.6 | 5.1 | 4.1 | 0.4 | 2.2 | 0.5 | 7.3 | 1.4 | 0.1 | 1.6 | [illegible] | 3.7 | 151 |
| 06-25% URBAN POPULATION | 2.4 | 0.2 | 2.1 | 0.7 | 5.3 | 5.1 | 0.3 | 3.1 | 0.9 | 9.4 | 1.1 | 0.1 | 1.6 | [illegible] | 3.4 | 95 |
| 26-50% URBAN POPULATION | 2.2 | 0.2 | 1.7 | 0.9 | 5.1 | 4.3 | 0.4 | 3.0 | 1.0 | 8.6 | 1.3 | 0.2 | 1.1 | [illegible] | 3.5 | 154 |
| 51-75% URBAN POPULATION | 1.8 | 0.2 | 1.5 | 1.3 | 4.8 | 4.3 | 0.3 | 3.1 | 1.7 | 9.5 | 1.0 | 0.2 | 0.9 | 1.2 | 3.3 | 132 |
| 76-95% URBAN POPULATION | 1.4 | 0.3 | 1.0 | 1.5 | 4.2 | 2.8 | 0.4 | 1.7 | 1.7 | 6.5 | 0.8 | 0.2 | 0.7 | 1.5 | 3.2 | 152 |
| OVER 95% URBAN POPULATION | 1.7 | 0.3 | 1.2 | 1.2 | 4.3 | 2.6 | 0.3 | 1.5 | 1.0 | 5.4 | 0.9 | 0.2 | 1.0 | 1.3 | 3.3 | 144 |
| F-RATIO | 4.72 | 1.74 | 0.24 | 12.78 | 0.09 | 5.92 | 1.33 | 0.26 | 8.97 | 0.57 | 2.30 | 6.85 | 0.16 | 14.34 | 1.03 | |
| SIGNIFICANCE % | 99.95 | 87.74 | 5.80 | 99.99 | 0.73 | 99.99 | 75.10 | 6.87 | 99.99 | 27.51 | 95.77 | 99.99 | 2.62 | 99.99 | 60.23 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-05% URBAN POPULATION | 1.3 | 0.1 | 1.7 | 0.6 | 3.7 | 1.5 | 0.1 | 2.6 | 0.6 | [illegible] | 1.1 | 0.1 | 0.6 | 0.7 | 2.5 | 48 |
| 06-25% URBAN POPULATION | 0.9 | 0.1 | 0.6 | 0.4 | 2.0 | 1.0 | 0.2 | 0.6 | 0.3 | [illegible] | 0.7 | 0.0 | 0.6 | 0.4 | 1.8 | 7 |
| 26-50% URBAN POPULATION | 1.2 | 0.2 | 2.1 | 0.8 | 4.3 | 1.8 | 0.3 | 2.8 | 0.7 | 5.6 | 0.9 | 0.1 | 1.7 | 0.9 | 3.7 | 23 |
| 51-75% URBAN POPULATION | 1.2 | 0.1 | 1.3 | 0.9 | 3.6 | 2.0 | 0.2 | 1.6 | 0.8 | 4.6 | 1.0 | 0.1 | 1.2 | 0.9 | 3.2 | 65 |
| 76-95% URBAN POPULATION | 1.0 | 0.2 | 1.0 | 1.2 | 3.4 | 1.7 | 0.3 | 1.0 | 1.2 | 4.2 | 0.8 | 0.2 | 1.0 | 1.1 | 3.1 | 84 |
| OVER 95% URBAN POPULATION | 1.0 | 0.2 | 0.8 | 1.0 | 3.0 | 1.4 | 0.3 | 0.7 | 1.0 | 3.3 | 0.7 | 0.2 | 0.9 | 1.1 | 2.9 | 146 |
| F-RATIO | 2.45 | 2.97 | 2.94 | 1.06 | 1.69 | 2.61 | 2.56 | 5.16 | 0.67 | 3.36 | 1.59 | 1.61 | 2.14 | 1.64 | 1.34 | |
| SIGNIFICANCE % | 96.73 | 91.77 | 98.71 | 61.46 | 86.46 | 97.56 | 97.33 | 99.97 | 35.04 | 99.41 | 83.78 | 84.42 | 94.01 | 85.28 | 75.24 | |

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT URBAN HEW/OASPE

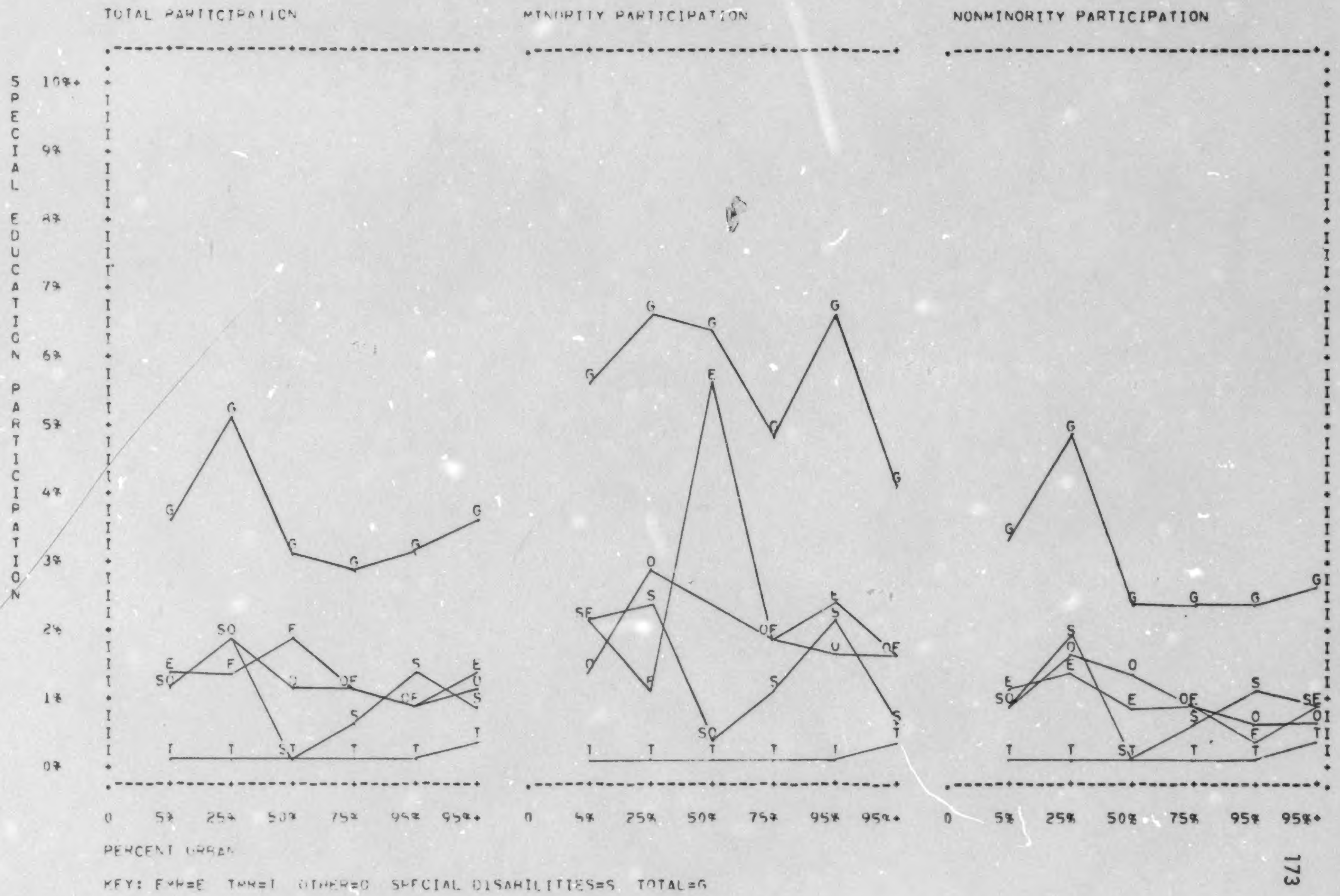
NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

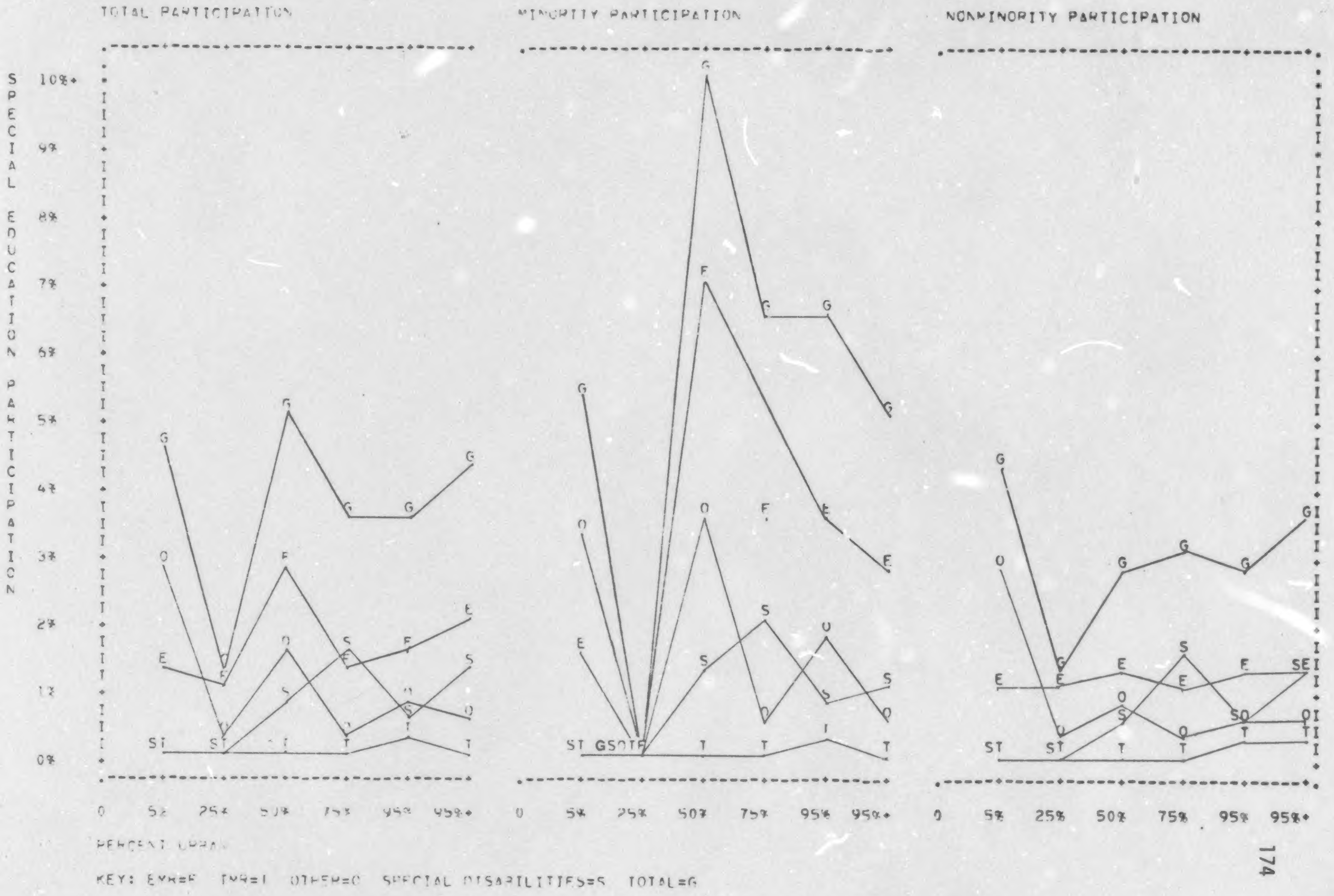
# PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT URBAN

## NORTHEAST



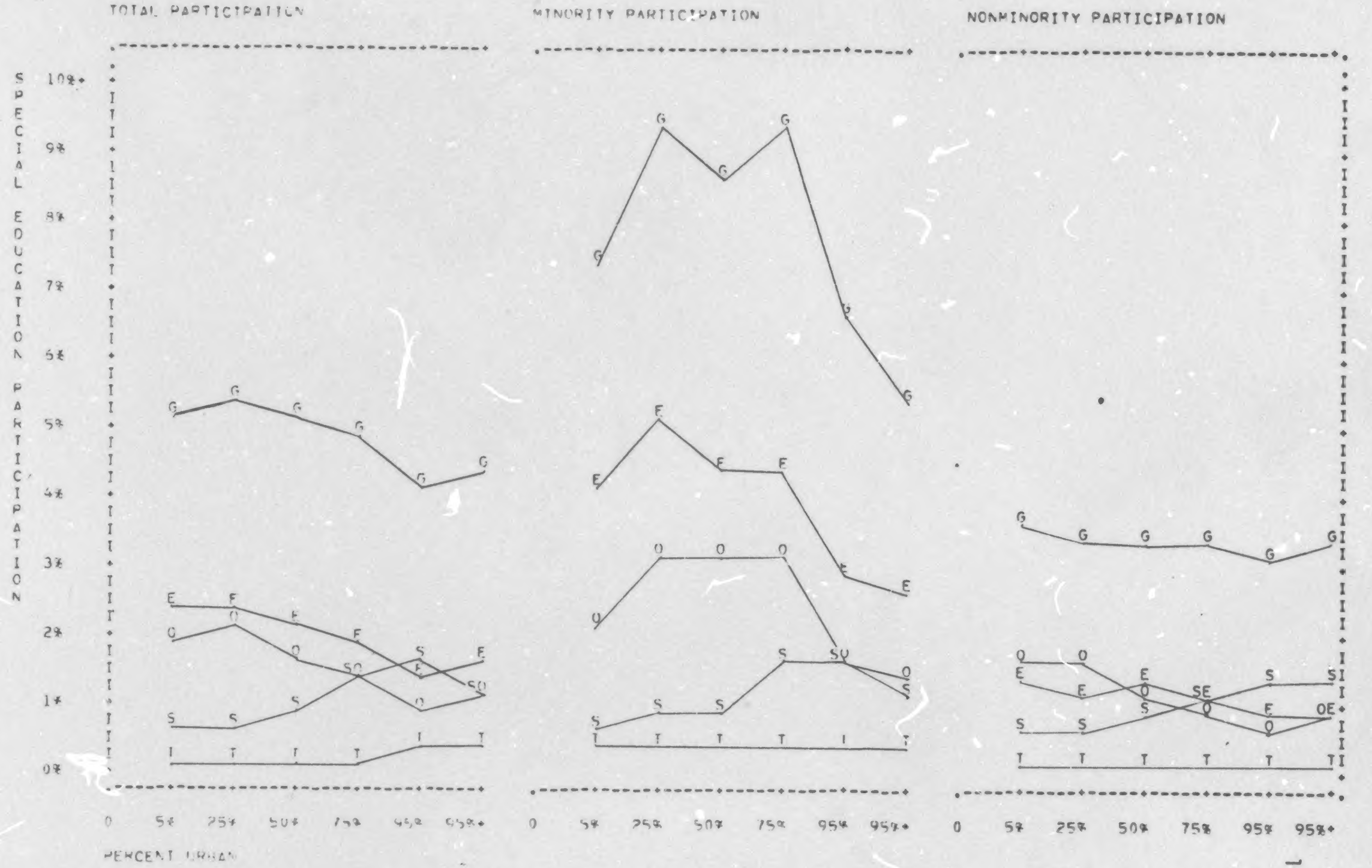
PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT URBAN

MIDWEST



PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT URBAN

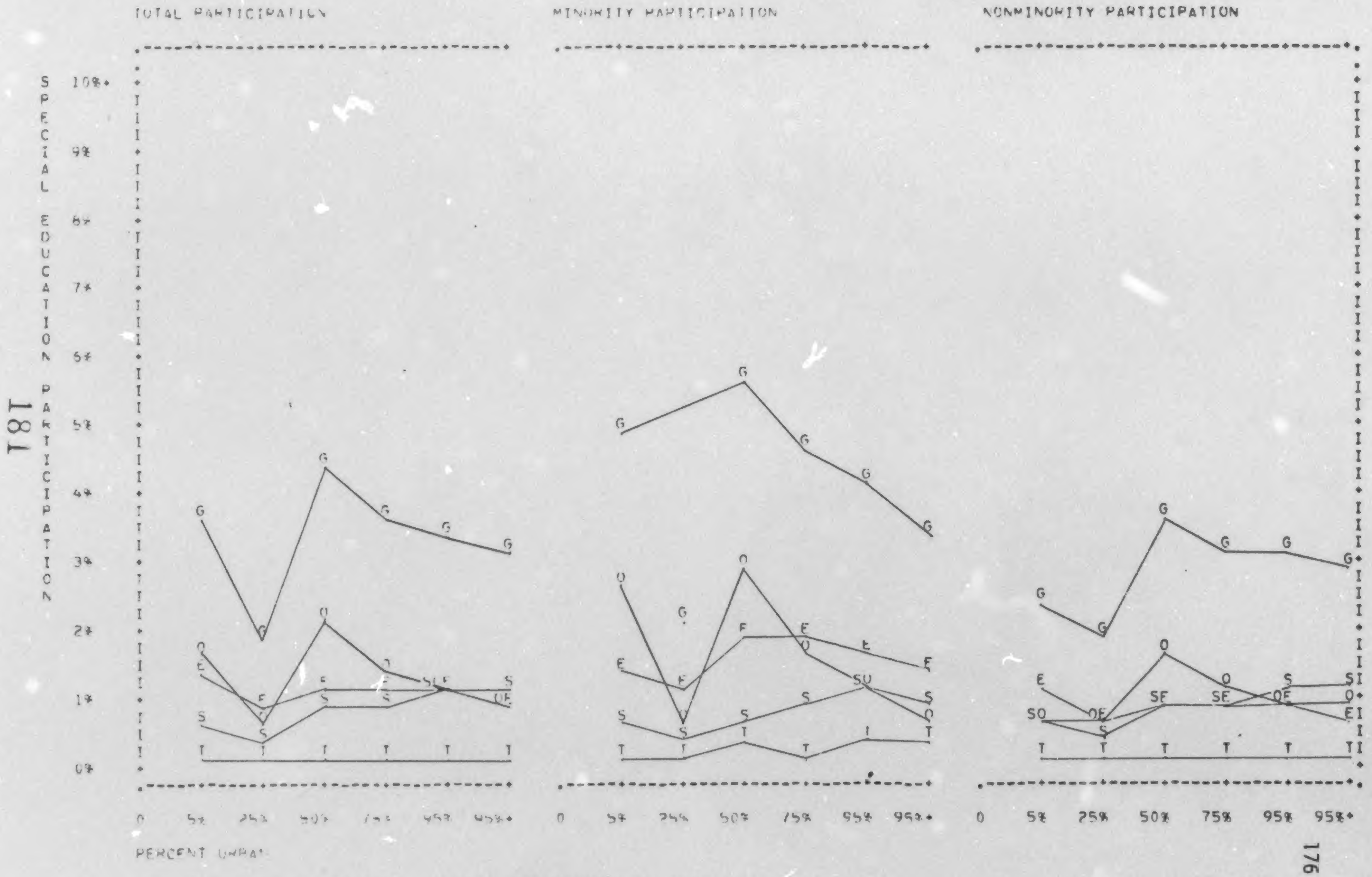
SOUTH



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT URBAN

WEST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

# Percent Special Education
# Participation by Percent Minority:
# Summary Information

## Parameter:

Percent Minority is the percentage of minority pupils comprising a district's total enrollment. Percent Minority measures the racial composition of school districts. In 1970 the national average was 20% Minority (16% Black).

## General Observations:

National Trends: The most striking national trend regarding this parameter involves minority participation. As districts contain a larger percentage of minority pupils, their participation in special education, particularly in EMR and Special Disabilities programs declines substantially. A possible explanation for this decline is the following: in districts where minority students are highly visible (i.e., they stand out since there are very few of them), they are placed in special education programs at a remarkably high rate, 8%. On the other hand, in districts largely composed of minority students, the participation rate of minority pupils approaches that of non-minority students. However, even in these largely minority districts, minority pupils participate in special education at a higher rate than non-minority pupils do.

Participation of non-minority pupils in all phases of special education is constant with regard to the percentage of minority pupils in a district.

Participation of the country's total enrollment in overall special education, EMR, and Special Disabilities, follows that of the nation's minority enrollment. Involvement in overall special education and EMR increases and in Special Disabilities programs decreases as the percentage of minority pupils in a district rises.

Northeast Regional Trends: In this region, the only definite conclusion supported by F ratios involves TMR participation. As usual, participation in TMR is constant with regard to Percent Minority.

Midwest Regional Trends: No clear trends arise in the Midwest's special education participation rates as the percentage of minority pupils in districts varies.

South Regional Trends: Minority participation in EMR, Special Disabilities, and overall special education programs declines as districts consist of larger percentages of minority pupils.

Curiously, the participation of the South's total enrollment in overall special education and EMR rise with Percent Minority, but not because of minority or non-minority behavior. Given that minority students always participate in special education at a much higher rate than non-minority students, it is natural to expect that the larger the percentage of minority pupils in a district's enrollment, the higher the participation rates of that district's total enrollment.

West Regional Trends: In the West, minority, non-minority, and total enrollment participation in Special Disabilities programs falls off as districts contain larger percentages of minority pupils.

AUG 04, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY HEW/OASPE

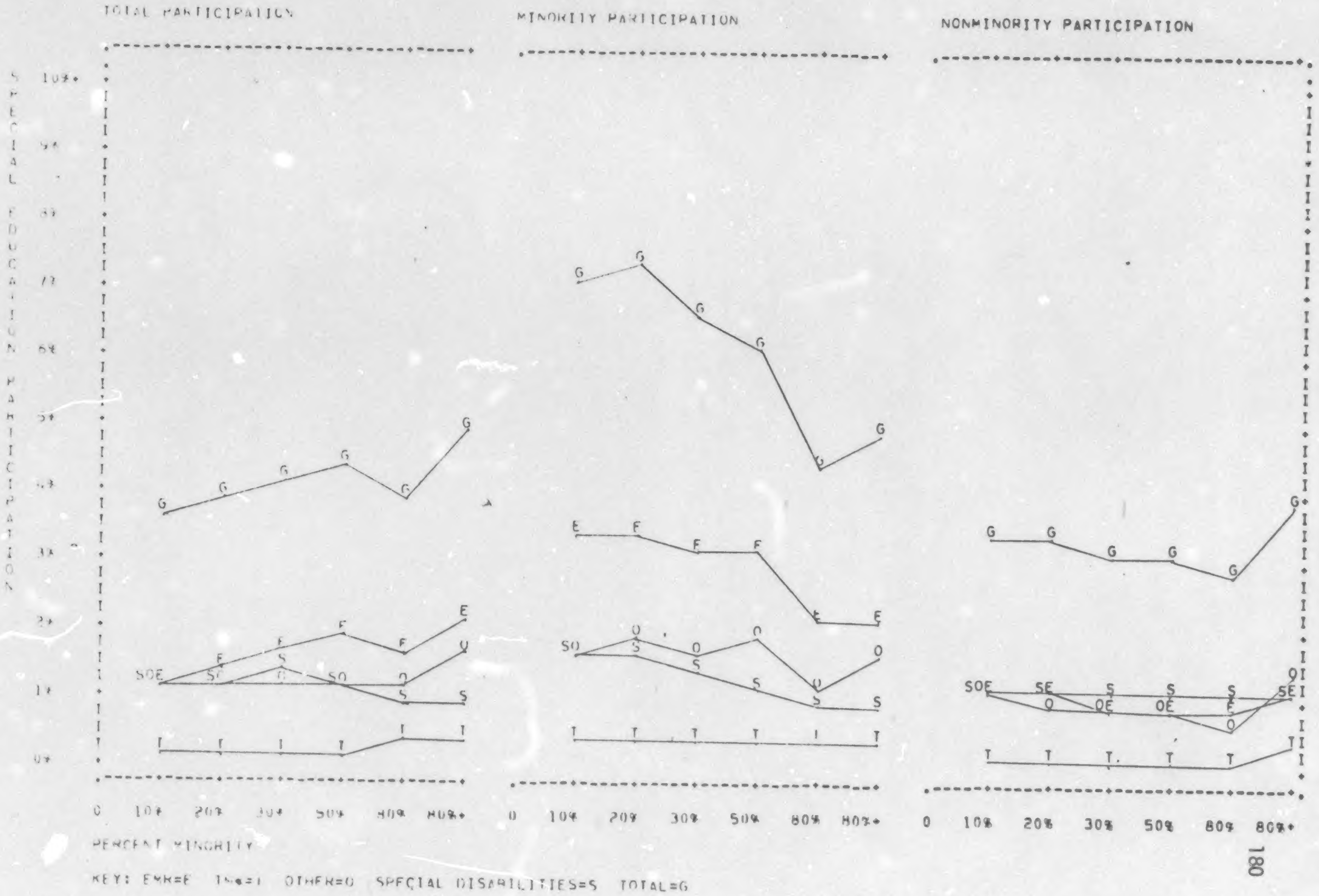
| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 1.2 | 0.2 | 1.1 | 1.1 | 3.7 | 3.4 | 0.4 | 1.7 | 1.6 | 7.1 | 1.0 | 0.2 | 1.1 | 1.1 | 3.5 | 181 |
| 11-20% MINORITY | 1.4 | 0.2 | 1.1 | 1.2 | 4.0 | 3.5 | 0.3 | 1.9 | 1.5 | 7.3 | 1.0 | 0.2 | 1.0 | 1.2 | 3.4 | 383 |
| 21-30% MINORITY | 1.6 | 0.2 | 1.1 | 1.3 | 4.1 | 3.2 | 0.3 | 1.7 | 1.5 | 6.7 | 1.0 | 0.2 | 0.8 | 1.2 | 3.2 | 289 |
| 31-50% MINORITY | 1.8 | 0.2 | 1.2 | 1.0 | 4.3 | 3.0 | 0.3 | 1.8 | 1.1 | 6.2 | 1.0 | 0.2 | 0.8 | 1.0 | 3.0 | 362 |
| 51-80% MINORITY | 1.6 | 0.3 | 1.1 | 0.9 | 3.9 | 2.1 | 0.3 | 1.2 | 0.9 | 4.5 | 0.9 | 0.2 | 0.7 | 1.0 | 2.8 | 249 |
| OVER 80% MINORITY | 2.6 | 0.3 | 1.7 | 0.8 | 4.8 | 2.1 | 0.3 | 1.7 | 0.8 | 4.9 | 1.2 | 0.3 | 1.4 | 1.0 | 4.0 | 78 |
| F-RATIO | 7.47 | 0.99 | 2.28 | 4.58 | 1.74 | 6.77 | 0.49 | 0.37 | 5.00 | 3.77 | 1.73 | 1.03 | 1.84 | 5.68 | 2.04 | |
| SIGNIFICANCE % | 99.99 | 57.55 | 95.65 | 99.94 | 87.89 | 99.99 | 21.38 | 12.72 | 99.97 | 99.75 | 87.65 | 59.95 | 89.83 | 99.99 | 93.03 | |
| NORT-EAST | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 1.2 | 0.1 | 0.7 | 0.8 | 2.7 | 3.0 | 0.1 | 1.2 | 1.0 | 5.3 | 1.1 | 0.1 | 0.6 | 0.8 | 2.5 | 16 |
| 11-20% MINORITY | 1.1 | 0.2 | 0.6 | 1.2 | 3.1 | 2.7 | 0.2 | 1.2 | 1.6 | 5.7 | 0.8 | 0.2 | 0.5 | 1.1 | 2.7 | 44 |
| 21-30% MINORITY | 1.2 | 0.3 | 1.1 | 1.1 | 3.7 | 2.2 | 0.3 | 2.0 | 1.4 | 5.9 | 0.9 | 0.3 | 0.8 | 1.0 | 2.9 | 28 |
| 31-50% MINORITY | 1.8 | 0.3 | 1.3 | 1.1 | 4.5 | 2.7 | 0.3 | 2.1 | 1.1 | 6.2 | 1.2 | 0.3 | 0.7 | 1.1 | 3.3 | 25 |
| 51-80% MINORITY | 1.2 | 0.3 | 1.2 | 0.6 | 3.3 | 1.5 | 0.3 | 1.5 | 0.6 | 3.8 | 0.8 | 0.3 | 0.6 | 0.6 | 2.3 | 21 |
| OVER 80% MINORITY | 1.9 | 0.3 | 0.4 | 0.6 | 3.2 | 1.9 | 0.3 | 0.5 | 0.6 | 3.3 | 1.3 | 0.4 | 0.3 | 0.5 | 2.5 | 5 |
| F-RATIO | 3.89 | 5.35 | 0.50 | 0.87 | 0.54 | 0.85 | 4.49 | 0.19 | 0.99 | 0.79 | 1.47 | 5.56 | 0.55 | 0.87 | 0.06 | |
| SIGNIFICANCE % | 99.71 | 99.97 | 22.10 | 49.90 | 25.15 | 48.23 | 99.89 | 3.65 | 57.53 | 44.15 | 79.55 | 99.98 | 25.61 | 49.51 | 0.41 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 1.3 | 0.2 | 0.4 | 0.7 | 2.7 | 3.3 | 0.3 | 0.8 | 0.7 | 5.0 | 1.2 | 0.2 | 0.4 | 0.8 | 2.5 | 34 |
| 11-20% MINORITY | 1.9 | 0.3 | 1.2 | 1.0 | 4.4 | 4.3 | 0.4 | 1.9 | 1.1 | 7.6 | 1.4 | 0.3 | 1.0 | 1.0 | 3.8 | 82 |
| 21-30% MINORITY | 2.2 | 0.2 | 0.7 | 0.8 | 3.9 | 3.7 | 0.2 | 1.1 | 0.5 | 5.5 | 1.6 | 0.2 | 0.6 | 1.0 | 3.4 | 32 |
| 31-50% MINORITY | 2.2 | 0.2 | 0.8 | 0.9 | 4.2 | 3.2 | 0.2 | 0.9 | 0.6 | 4.9 | 1.6 | 0.2 | 0.7 | 1.1 | 3.6 | 30 |
| 51-80% MINORITY | 2.2 | 0.2 | 0.6 | 1.7 | 4.7 | 2.7 | 0.2 | 0.6 | 1.6 | 5.0 | 1.3 | 0.1 | 0.4 | 2.1 | 4.0 | 16 |
| OVER 80% MINORITY | 1.5 | 0.2 | 0.1 | 0.2 | 2.0 | 1.5 | 0.2 | 0.1 | 0.2 | 2.0 | 1.1 | 0.4 | 0.1 | 0.4 | 2.0 | 8 |
| F-RATIO | 0.31 | 1.16 | 0.64 | 1.26 | 0.91 | 0.87 | 1.92 | 0.72 | 1.44 | 1.48 | 0.47 | 0.96 | 0.61 | 1.13 | 0.95 | |
| SIGNIFICANCE % | 9.53 | 67.25 | 32.60 | 72.02 | 52.56 | 49.65 | 90.77 | 38.50 | 79.08 | 80.46 | 19.80 | 55.30 | 30.34 | 65.40 | 54.82 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 1.3 | 0.2 | 1.3 | 1.2 | 4.1 | 4.1 | 0.5 | 2.1 | 1.8 | 8.4 | 1.1 | 0.2 | 1.3 | 1.2 | 3.8 | 94 |
| 11-20% MINORITY | 1.5 | 0.2 | 1.1 | 1.3 | 4.1 | 4.5 | 0.4 | 2.1 | 1.7 | 8.6 | 1.0 | 0.2 | 0.9 | 1.2 | 3.2 | 141 |
| 21-30% MINORITY | 1.8 | 0.2 | 1.2 | 1.5 | 4.8 | 4.1 | 0.4 | 2.2 | 1.9 | 8.6 | 1.0 | 0.2 | 0.9 | 1.4 | 3.5 | 151 |
| 31-50% MINORITY | 2.0 | 0.3 | 1.5 | 1.1 | 4.8 | 3.7 | 0.4 | 2.4 | 1.2 | 7.7 | 0.9 | 0.2 | 0.9 | 1.0 | 3.0 | 231 |
| 51-80% MINORITY | 1.9 | 0.3 | 1.4 | 0.9 | 4.5 | 2.5 | 0.3 | 1.6 | 0.8 | 5.3 | 0.9 | 0.2 | 1.0 | 0.9 | 3.0 | 162 |
| OVER 80% MINORITY | 2.3 | 0.3 | 2.2 | 1.0 | 5.7 | 2.4 | 0.3 | 2.3 | 1.0 | 5.9 | 1.2 | 0.3 | 1.9 | 1.3 | 4.6 | 49 |
| F-RATIO | 5.98 | 0.94 | 1.58 | 1.35 | 1.63 | 12.12 | 0.43 | 0.34 | 2.56 | 4.25 | 3.68 | 0.27 | 1.90 | 2.13 | 2.16 | |
| SIGNIFICANCE % | 99.99 | 54.30 | 83.88 | 75.99 | 85.26 | 99.99 | 17.28 | 10.96 | 97.42 | 99.89 | 99.70 | 7.10 | 90.95 | 94.03 | 94.45 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-10% MINORITY | 0.8 | 0.2 | 1.3 | 1.4 | 3.7 | 1.8 | 0.6 | 1.6 | 1.9 | 5.8 | 0.7 | 0.2 | 1.3 | 1.4 | 3.6 | 37 |
| 11-20% MINORITY | 1.0 | 0.2 | 1.3 | 1.3 | 3.8 | 1.7 | 0.2 | 2.0 | 1.7 | 5.6 | 0.8 | 0.2 | 1.2 | 1.3 | 3.5 | 116 |
| 21-30% MINORITY | 0.9 | 0.2 | 0.9 | 0.9 | 2.9 | 1.4 | 0.3 | 0.9 | 0.9 | 3.5 | 0.7 | 0.2 | 0.8 | 0.9 | 2.7 | 78 |
| 31-50% MINORITY | 1.1 | 0.2 | 0.7 | 1.0 | 3.0 | 1.6 | 0.2 | 0.7 | 1.0 | 3.5 | 0.8 | 0.2 | 0.7 | 1.0 | 2.6 | 76 |
| 51-80% MINORITY | 1.1 | 0.2 | 0.6 | 0.8 | 2.7 | 1.4 | 0.3 | 0.6 | 0.8 | 3.0 | 0.6 | 0.2 | 0.6 | 0.8 | 2.2 | 50 |
| OVER 80% MINORITY | 1.0 | 0.2 | 2.0 | 0.4 | 3.6 | 1.0 | 0.2 | 2.1 | 0.4 | 3.8 | 0.8 | 0.2 | 0.7 | 0.2 | 2.0 | 16 |
| F-RATIO | 1.32 | 0.69 | 3.13 | 2.60 | 1.88 | 0.38 | 1.87 | 3.36 | 2.18 | 3.64 | 0.79 | 1.55 | 2.00 | 3.03 | 2.17 | |
| SIGNIFICANCE % | 74.49 | 36.69 | 99.10 | 97.51 | 90.46 | 13.67 | 90.28 | 99.41 | 94.46 | 99.65 | 44.01 | 82.61 | 92.28 | 98.92 | 94.34 | |

JUN 27, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY

HEW/OASPE

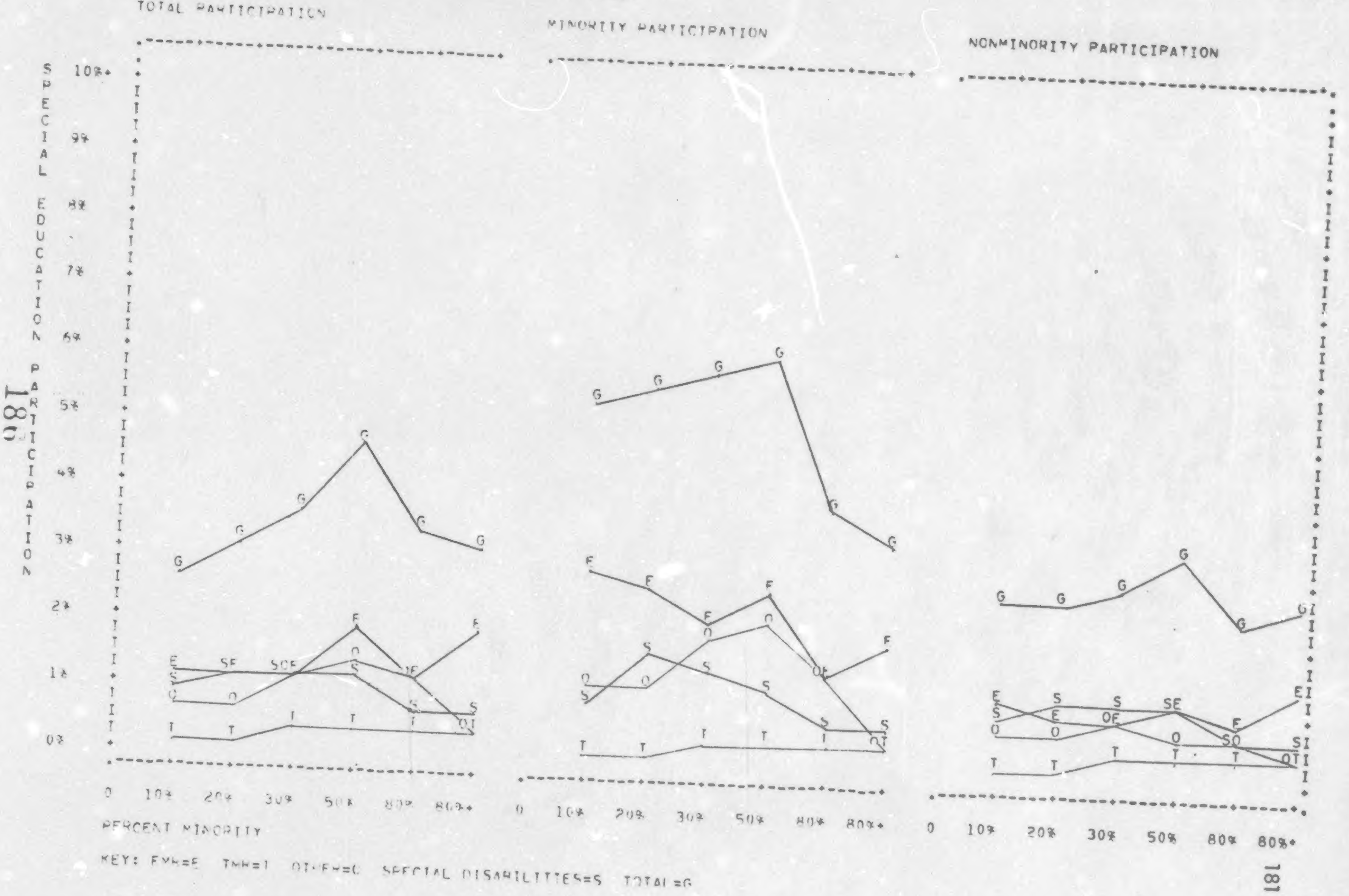
NATION



JUN 27, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY

NORTHEAST

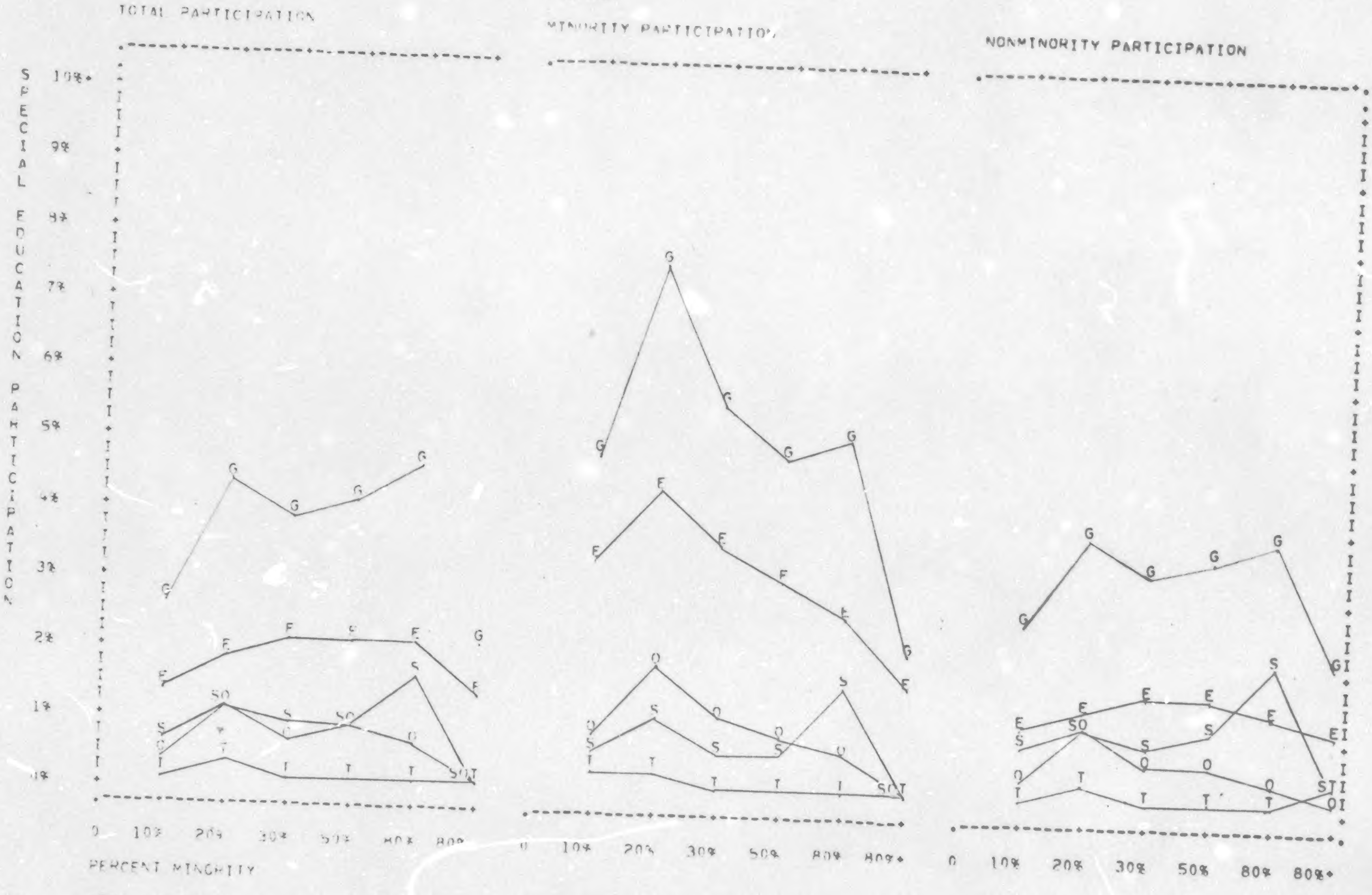


JUN 27, 1975

HEW/OASPE

# PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY

## MIDWEST



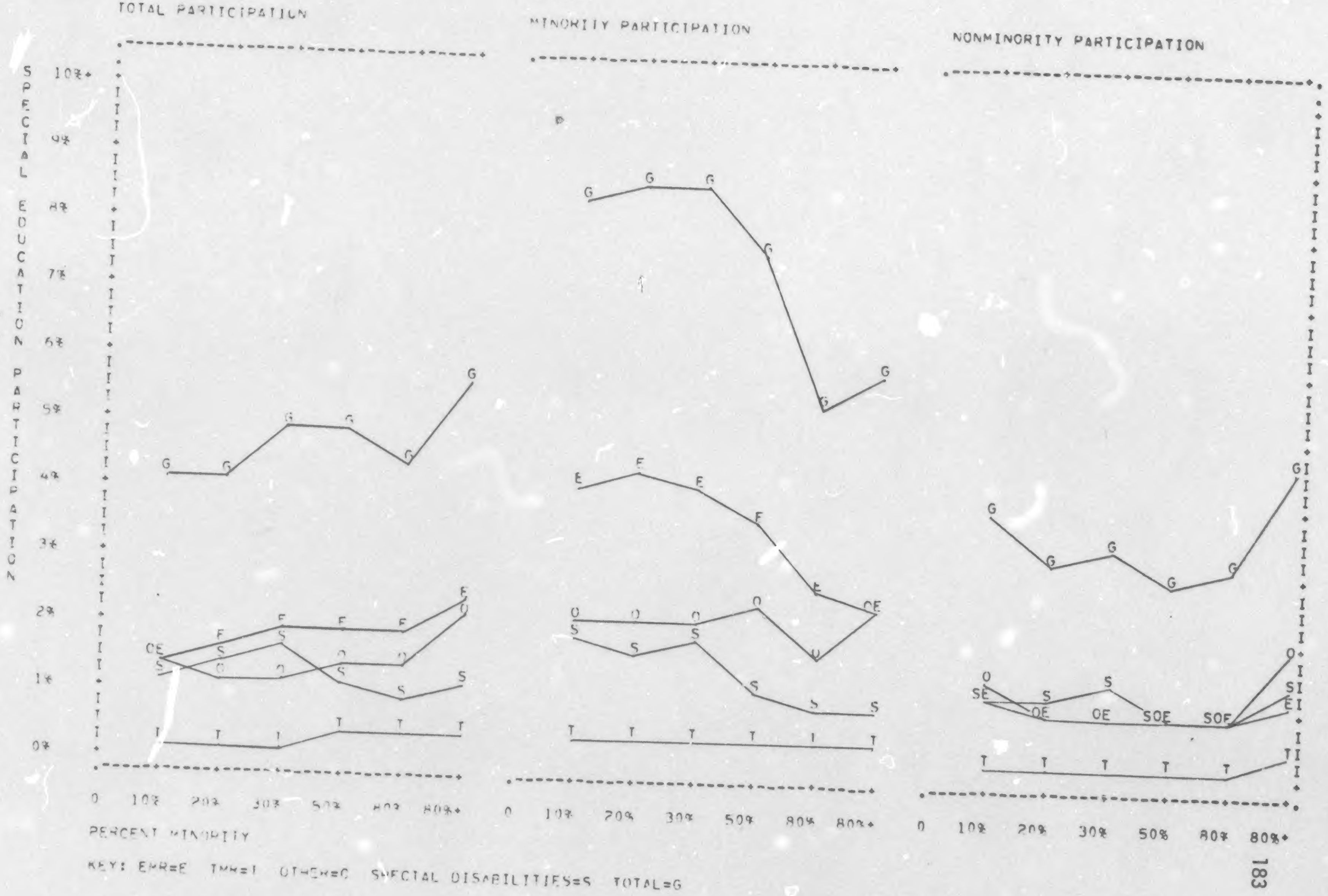
KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY

SOUTH

HEW/OASPE

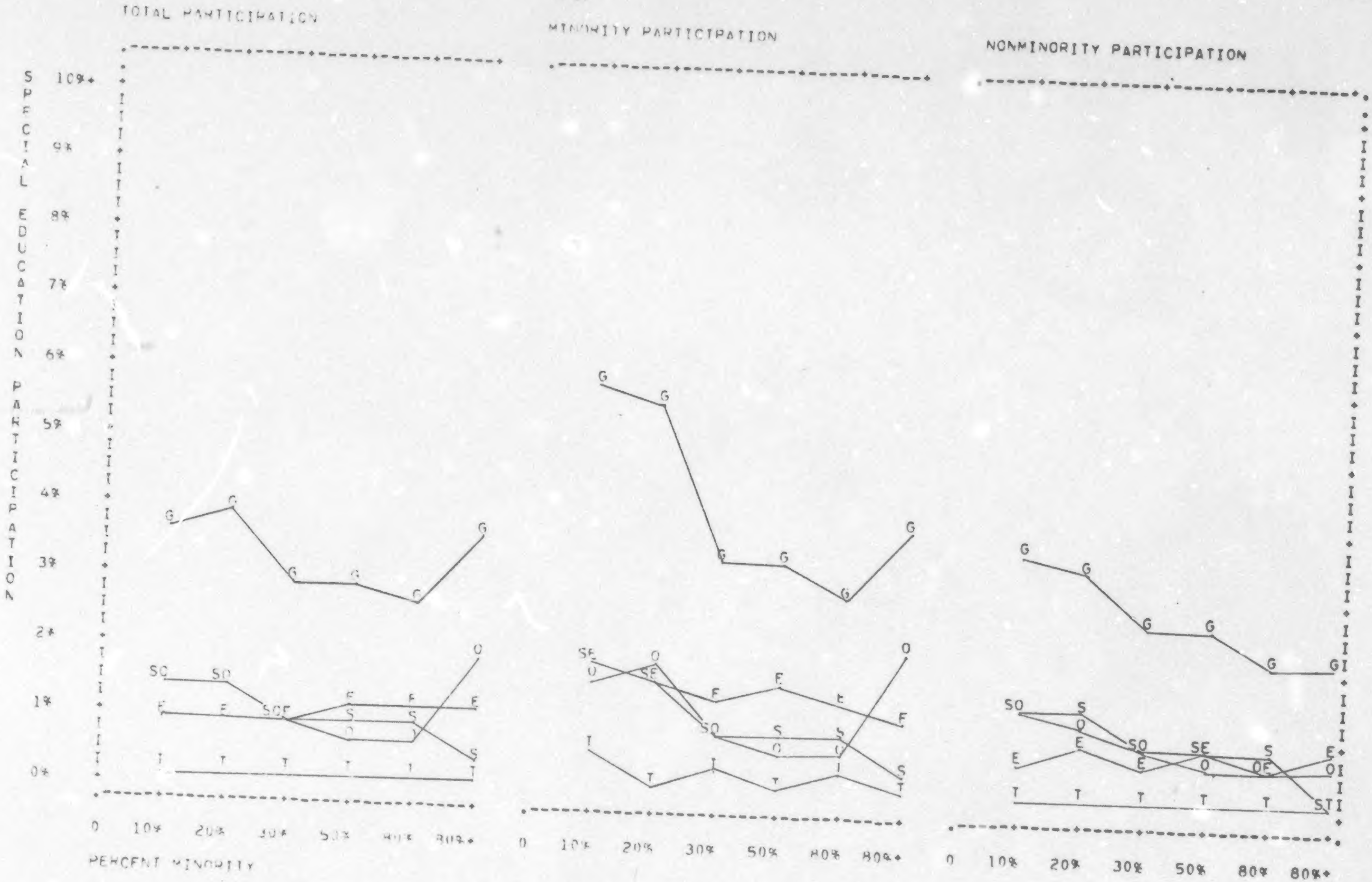


JUN 27, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY

HEW/OASPE

WEST



KEY: EMR=E  TMR=I  OI-FR=O  SPECIAL DISABILITIES=S  TOTAL=G

# Percent Special Education
# Participation by Enrollment:
# Summary Information

Parameter:

Enrollment is simply the number of pupils enrolled in a school district. A study of participation in special education as districts' enrollment sizes vary may point to an important factor in special education participation. Average district size on the OCR/SDELM File is approximately 12,000 students.

General Observations:

National Trends: As is often the case, non-minority participation is fairly constant throughout all districts and minority participation is more sensitive to the parameter analyzed. In this instance, minority participation in overall special education, particularly in EMR and Other programs, declines drastically as enrollment increases, to the extent that the nation's total enrollment participation in these aspects of special education also declines.

Non-minority participation in all aspects of special education seems to be unaffected by enrollment size with two exceptions: non-minority participation in Other programs falls off and in Special Disabilities programs rises slightly as districts with larger enrollments are considered.

Northeast Regional Trends: No concrete trends in special education participation arise as the enrollment size of districts in the Northeast is examined.

Midwest Regional Trends: In the Midwest, minority, non-minority, and total enrollments' participation in Other programs decrease as the size of districts increases. Also, minority pupil participation in Special Disabilities programs rises with district size.

South Regional Trends: Several striking trends emerge in the South as district size varies. First of all, non-minority, minority, and total pupil participation in overall special education declines as district enrollment increases. For minority students, this behavior can be attributed to participation in EMR and Other programs, which decreases as districts with larger enrollments are considered.

For non-minority pupils, the overall decrease may be almost totally attributed to a decline in the rate at which students participate in Other programs as enrollments grow. Also, there is a noticeable increase in the rate at which non-minority pupils are involved in Special Disability programs as bigger districts are examined.

Finally, the participation of the South's total enrollment in overall special education (especially in EMR and Other programs) declines as district size increases. The decrease in EMR and Other programs participation is offset somewhat by an increase in Special Disabilities participation.

West Regional Trends: In the West, there are general decreases in the rates at which minority, non-minority, and total enrollments participate in EMR, Other, and overall special education programs. This decline is more pronounced for minority pupils but also holds for non-minority participation as well.

AUG 04, 1975

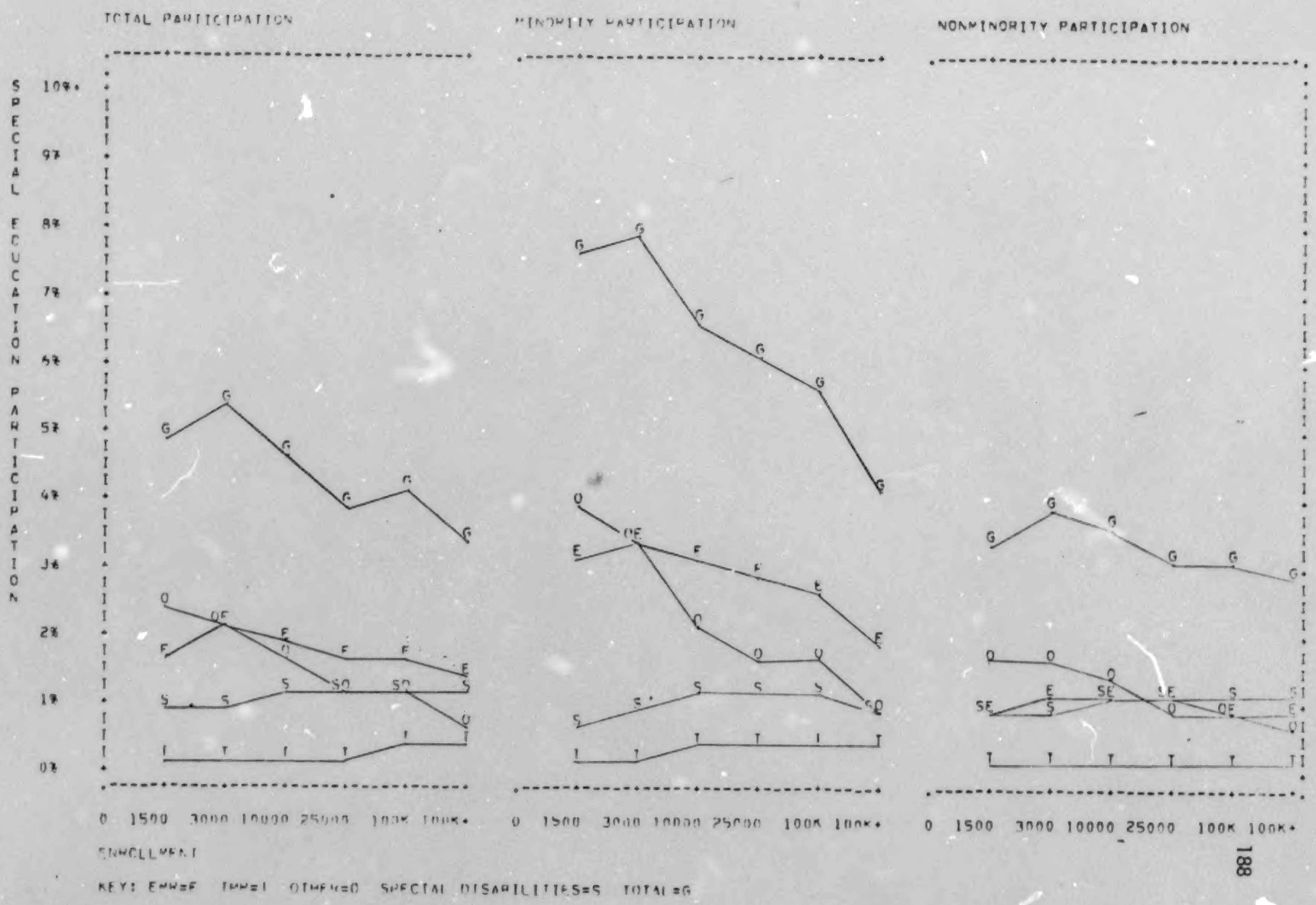
# PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT

HEW/OASPE

| GEOGRAPHIC AREA<br>ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION--- |  |  |  |  | --MINORITY % PARTICIPATION-- |  |  |  |  | NONMINORITY % PARTICIPATION |  |  |  |  | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 - 1500 ENROLLMENT | 1.7 | 0.1 | 2.[illegible] | 0.8 | 4.8 | 3.1 | 0.0 | 3.8 | 0.7 | 7.6 | 1.0 | 0.1 | 1.5 | 0.8 | 3.4 | 150 |
| 1501 - 3000 ENROLLMENT | 2.1 | 0.1 | 2.2 | 1.0 | 5.4 | 3.4 | 0.2 | 3.3 | 1.0 | 7.9 | 1.2 | 0.1 | 1.5 | 0.9 | 3.8 | 192 |
| 3001 - 10,000 ENROLLMENT | 1.8 | 0.2 | 1.5 | 1.1 | 4.7 | 3.2 | 0.3 | 2.1 | 1.1 | 6.7 | 1.1 | 0.2 | 1.3 | 1.1 | 3.6 | 728 |
| 10,001 - 25,000 ENROLLMENT | 1.6 | 0.2 | 1.0 | 1.1 | 3.9 | 2.9 | 0.3 | 1.6 | 1.2 | 6.0 | 1.0 | 0.2 | 0.8 | 1.0 | 3.1 | 310 |
| 25,001 - 100,000 ENROLLMENT | 1.5 | 0.3 | 1.1 | 1.2 | 4.0 | 2.6 | 0.3 | 1.7 | 1.1 | 5.7 | 0.9 | 0.2 | 0.8 | 1.2 | 3.2 | 142 |
| OVER 100,000 ENROLLMENT | 1.4 | 0.3 | 0.7 | 1.1 | 3.5 | 1.9 | 0.3 | 0.9 | 1.0 | 4.1 | 0.8 | 0.2 | 0.6 | 1.2 | 2.8 | 20 |
| F-RATIO | 3.72 | 7.63 | 4.41 | 1.42 | 3.44 | 1.54 | 8.24 | 4.37 | 0.63 | 2.93 | 1.09 | 6.97 | 3.91 | 2.11 | 1.06 |  |
| SIGNIFICANCE % | 99.73 | 99.99 | 99.92 | 78.55 | 94.54 | 82.78 | 99.99 | 99.91 | 32.27 | 98.78 | 63.59 | 99.99 | 99.81 | 93.89 | 61.71 |  |
| NORTHEAST |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 - 1500 ENROLLMENT | 0.7 | 0.0 | 0.0 | 0.6 | 1.4 | 1.9 | 0.0 | 0.0 | 0.6 | 2.5 | 0.6 | 0.0 | 0.0 | 0.6 | 1.3 | 2 |
| 1501 - 3000 ENROLLMENT | 1.1 | 0.1 | 0.7 | 0.6 | 2.5 | 1.8 | 0.1 | 0.9 | 0.5 | 3.2 | 1.0 | 0.1 | 0.6 | 0.6 | 2.3 | 4 |
| 3001 - 10,000 ENROLLMENT | 1.2 | 0.2 | 0.6 | 1.0 | 3.3 | 2.3 | 0.2 | 1.2 | 0.9 | 4.5 | 0.8 | 0.2 | 0.7 | 1.0 | 2.7 | 85 |
| 10,001 25,000 ENROLLMENT | 1.4 | 0.3 | 0.9 | 1.0 | 3.6 | 2.4 | 0.3 | 1.5 | 1.2 | 5.3 | 1.0 | 0.3 | 0.6 | 0.9 | 2.7 | 35 |
| 25,001 100,000 ENROLLMENT | 1.8 | 0.4 | 1.9 | 1.0 | 5.0 | 2.3 | 0.4 | 2.9 | 0.9 | 6.4 | 1.2 | 0.4 | 0.7 | 1.0 | 3.4 | 11 |
| OVER 100,000 ENROLLMENT | 1.1 | 0.3 | 1.0 | 0.6 | 3.0 | 1.4 | 0.3 | 1.2 | 0.5 | 3.4 | 0.7 | 0.3 | 0.6 | 0.6 | 2.2 | 2 |
| F-RATIO | 1.48 | 4.15 | 1.60 | 0.15 | 1.57 | 0.87 | 7.28 | 0.95 | 0.30 | 0.78 | 0.97 | 2.48 | 0.51 | 0.10 | 0.40 |  |
| SIGNIFICANCE % | 80.19 | 99.81 | 83.54 | 2.14 | 82.78 | 49.21 | 99.99 | 54.94 | 9.03 | 43.01 | 55.77 | 96.57 | 22.82 | 1.05 | 15.43 |  |
| MIDWEST |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 - 1500 ENROLLMENT | 1.8 | 0.1 | 2.4 | 0.3 | 4.6 | 3.1 | 0.1 | 2.9 | 0.2 | 6.4 | 1.2 | 0.2 | 2.1 | 0.3 | 3.8 | 29 |
| 1501 - 3000 ENROLLMENT | 2.0 | 0.1 | 0.7 | 1.3 | 4.1 | 4.2 | 0.1 | 0.8 | 1.2 | 6.3 | 1.2 | 0.1 | 0.7 | 1.4 | 3.3 | 16 |
| 3001 - 10,000 ENROLLMENT | 2.1 | 0.2 | 1.4 | 1.3 | 5.0 | 3.5 | 0.2 | 2.0 | 1.1 | 6.7 | 1.6 | 0.2 | 1.2 | 1.3 | 4.3 | 83 |
| 10,001 - 25,000 ENROLLMENT | 1.7 | 0.3 | 0.6 | 0.6 | 3.3 | 3.2 | 0.2 | 0.9 | 0.6 | 5.0 | 1.3 | 0.3 | 0.5 | 0.8 | 2.9 | 48 |
| 25,001 - 100,000 ENROLLMENT | 1.9 | 0.3 | 0.8 | 1.0 | 4.1 | 3.1 | 0.3 | 1.0 | 0.9 | 5.3 | 1.4 | 0.3 | 0.7 | 1.0 | 3.5 | 21 |
| OVER 100,000 ENROLLMENT | 2.3 | 0.2 | 0.5 | 1.5 | 4.5 | 2.8 | 0.2 | 0.5 | 1.4 | 4.9 | 1.4 | 0.2 | 0.3 | 1.7 | 3.7 | 5 |
| F-RATIO | 0.24 | 0.41 | 2.43 | 1.95 | 0.63 | 0.12 | 0.33 | 1.72 | 2.73 | 0.63 | 0.22 | 0.41 | 2.13 | 1.68 | 0.46 |  |
| SIGNIFICANCE % | 5.57 | 15.46 | 96.43 | 9[illegible].28 | 31.82 | 1.51 | 10.29 | 86.87 | 97.93 | 32.16 | 4.74 | 15.54 | 93.78 | 85.96 | 19.54 |  |
| SOUTH |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 - 1500 ENROLLMENT | 2.0 | 0.0 | 3.1 | 0.6 | 5.7 | 3.7 | 0.0 | 5.3 | 0.6 | 9.6 | 0.9 | 0.1 | 1.9 | 0.5 | 3.4 | 69 |
| 1501 - 3000 ENROLLMENT | 2.2 | 0.1 | 2.5 | 1.0 | 5.9 | 3.7 | 0.2 | 3.7 | 1.0 | 8.7 | 1.1 | 0.1 | 1.6 | 1.0 | 3.8 | 121 |
| 3001 - 10,000 ENROLLMENT | 2.2 | 0.3 | 1.9 | 1.0 | 5.4 | 4.0 | 0.3 | 2.5 | 1.2 | 8.0 | 1.2 | 0.2 | 1.5 | 0.9 | 3.8 | 407 |
| 10,001 - 25,000 ENROLLMENT | 1.9 | 0.2 | 1.3 | 1.1 | 4.5 | 3.8 | 0.4 | 2.2 | 1.3 | 7.6 | 1.0 | 0.2 | 0.9 | 1.0 | 3.2 | 144 |
| 25,001 - 100,000 ENROLLMENT | 1.6 | 0.2 | 1.1 | 1.3 | 4.2 | 3.0 | 0.3 | 1.8 | 1.2 | 6.4 | 0.9 | 0.2 | 0.8 | 1.3 | 3.2 | 76 |
| OVER 100,000 ENROLLMENT | 1.3 | 0.3 | 0.9 | 1.3 | 3.8 | 2.2 | 0.3 | 1.1 | 1.1 | 4.8 | 0.7 | 0.2 | 0.7 | 1.4 | 3.0 | 11 |
| F-RATIO | 4.17 | 8.27 | 2.24 | 2.50 | 1.96 | 2.26 | 8.00 | 2.26 | 1.23 | 1.31 | 1.56 | 9.87 | 2.00 | 3.59 | 0.46 |  |
| SIGNIFICANCE % | 99.87 | 99.99 | 95.18 | 97.09 | 91.89 | 95.37 | 99.99 | 95.38 | 70.74 | 74.47 | 83.18 | 99.99 | 92.44 | 99.64 | 19.06 |  |
| WEST |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 - 1500 ENROLLMENT | 1.3 | 0.0 | 1.1 | 1.4 | 3.8 | 2.1 | 0.0 | 1.7 | 1.2 | 5.1 | 0.9 | 0.0 | 0.8 | 1.4 | 3.2 | 50 |
| 1501 - 3000 ENROLLMENT | 1.8 | 0.2 | 2.1 | 0.8 | 4.9 | 2.6 | 0.2 | 2.8 | 0.8 | 6.5 | 1.3 | 0.1 | 1.7 | 0.8 | 3.9 | 51 |
| 3001 - 10,000 ENROLLMENT | 1.0 | 0.1 | 1.1 | 1.2 | 3.5 | 1.4 | 0.2 | 1.2 | 1.1 | 3.9 | 0.9 | 0.1 | 1.1 | 1.3 | 3.3 | 153 |
| 10,001 - 25,000 ENROLLMENT | 1.0 | 0.2 | 1.0 | 1.1 | 3.3 | 1.4 | 0.2 | 0.9 | 1.2 | 3.7 | 0.8 | 0.1 | 1.0 | 1.1 | 3.1 | 83 |
| 25,001 - 100,000 ENROLLMENT | 1.0 | 0.2 | 0.9 | 1.0 | 3.1 | 1.6 | 0.3 | 0.9 | 0.9 | 3.7 | 0.7 | 0.2 | 0.9 | 1.0 | 2.9 | 34 |
| OVER 100,000 ENROLLMENT | 0.8 | 0.3 | 0.5 | 0.7 | 2.3 | 1.2 | 0.3 | 0.4 | 0.7 | 2.7 | 0.4 | 0.2 | 0.6 | 0.7 | 1.9 | 2 |
| F-RATIO | 4.01 | 3.10 | 2.14 | 0.64 | 2.20 | 2.28 | 2.41 | 2.62 | 0.74 | 2.59 | 3.74 | 2.59 | 1.57 | 0.70 | 1.16 |  |
| SIGNIFICANCE % | 99.82 | 99.05 | 94.07 | 33.10 | 94.74 | 95.46 | 96.43 | 97.60 | 40.20 | 97.48 | 99.71 | 97.49 | 83.45 | 37.69 | 67.36 |  |

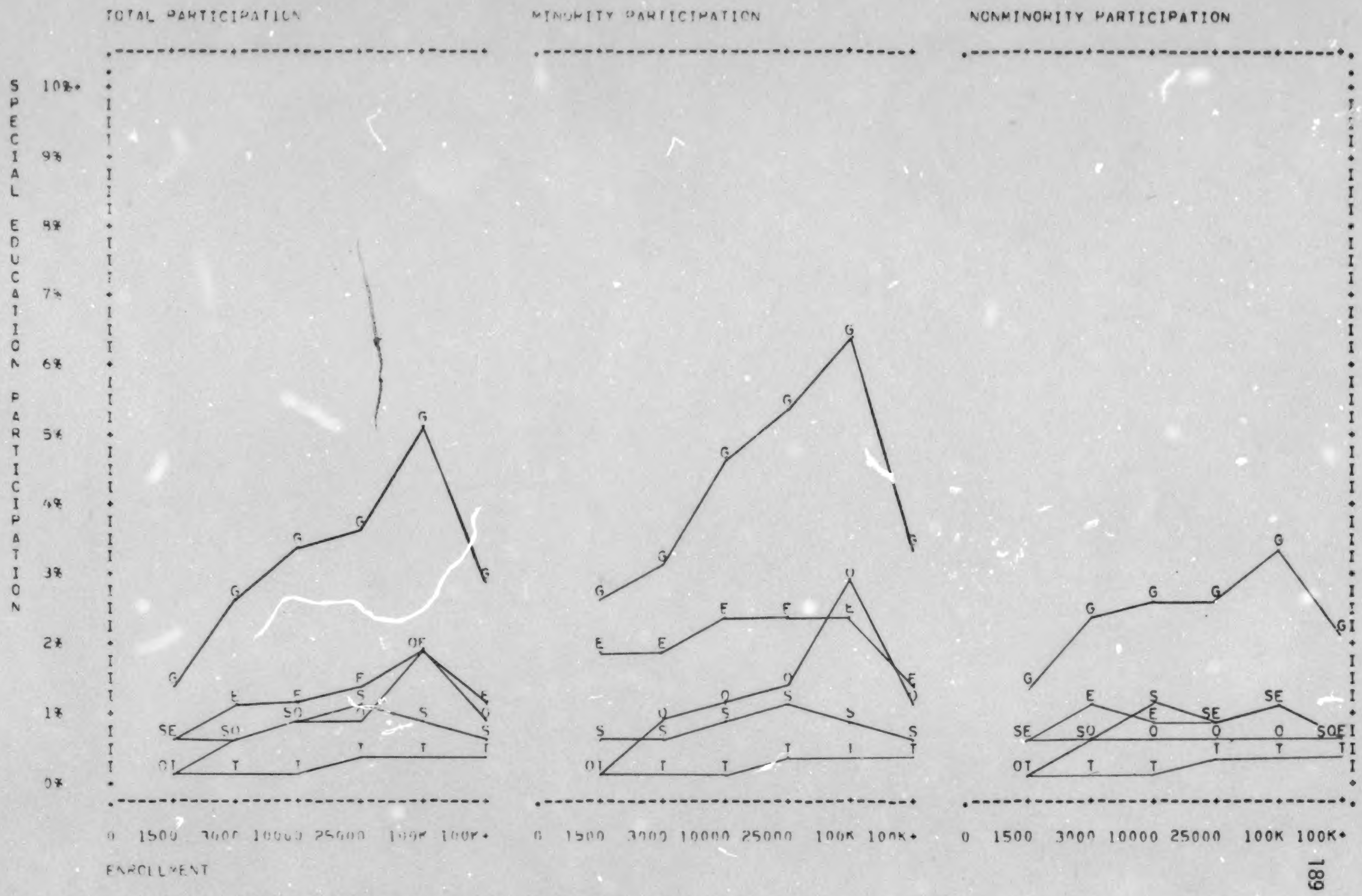
JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT HEW/OASP

NATION



PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT

NORTHEAST



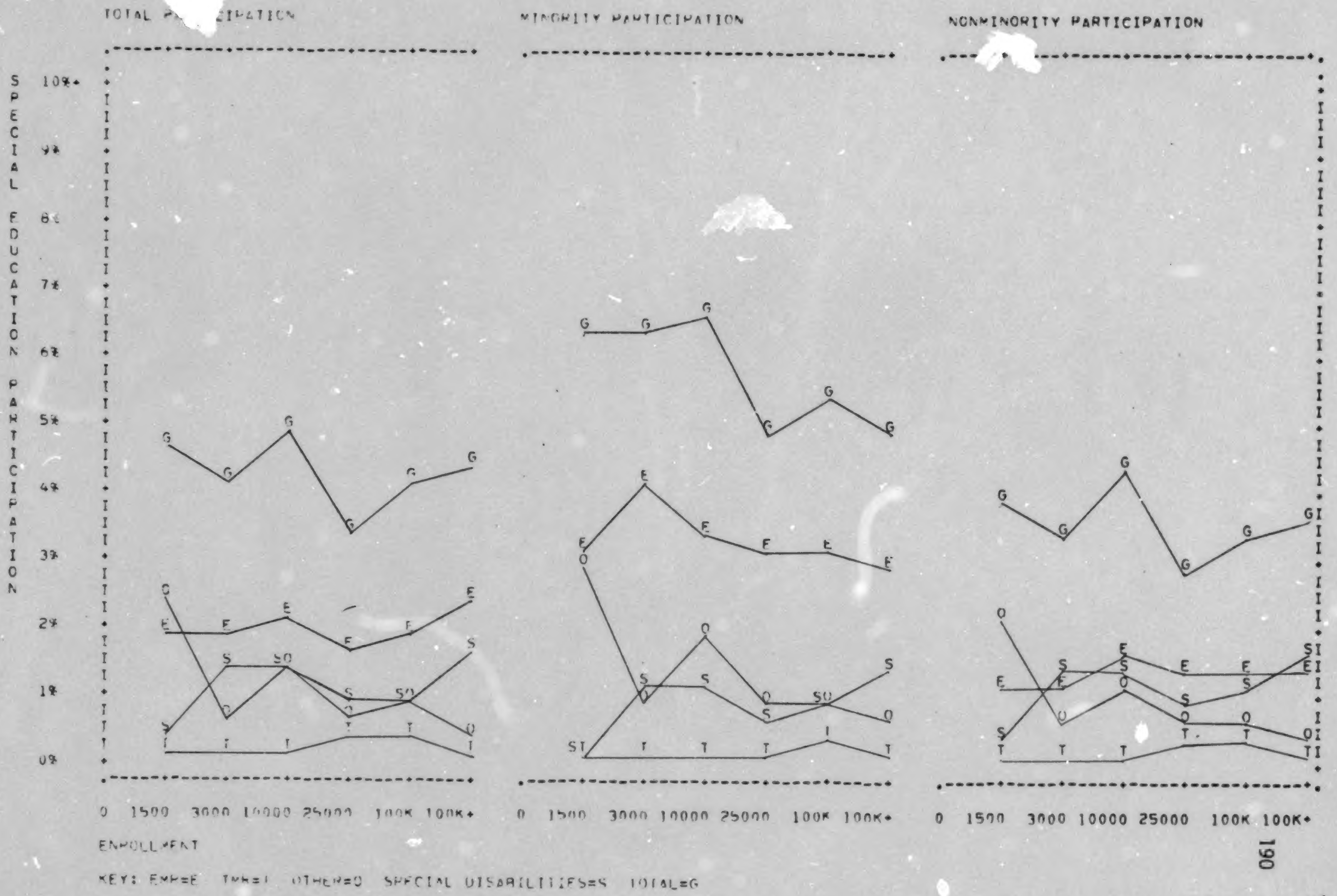
KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 197[illegible]

PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT

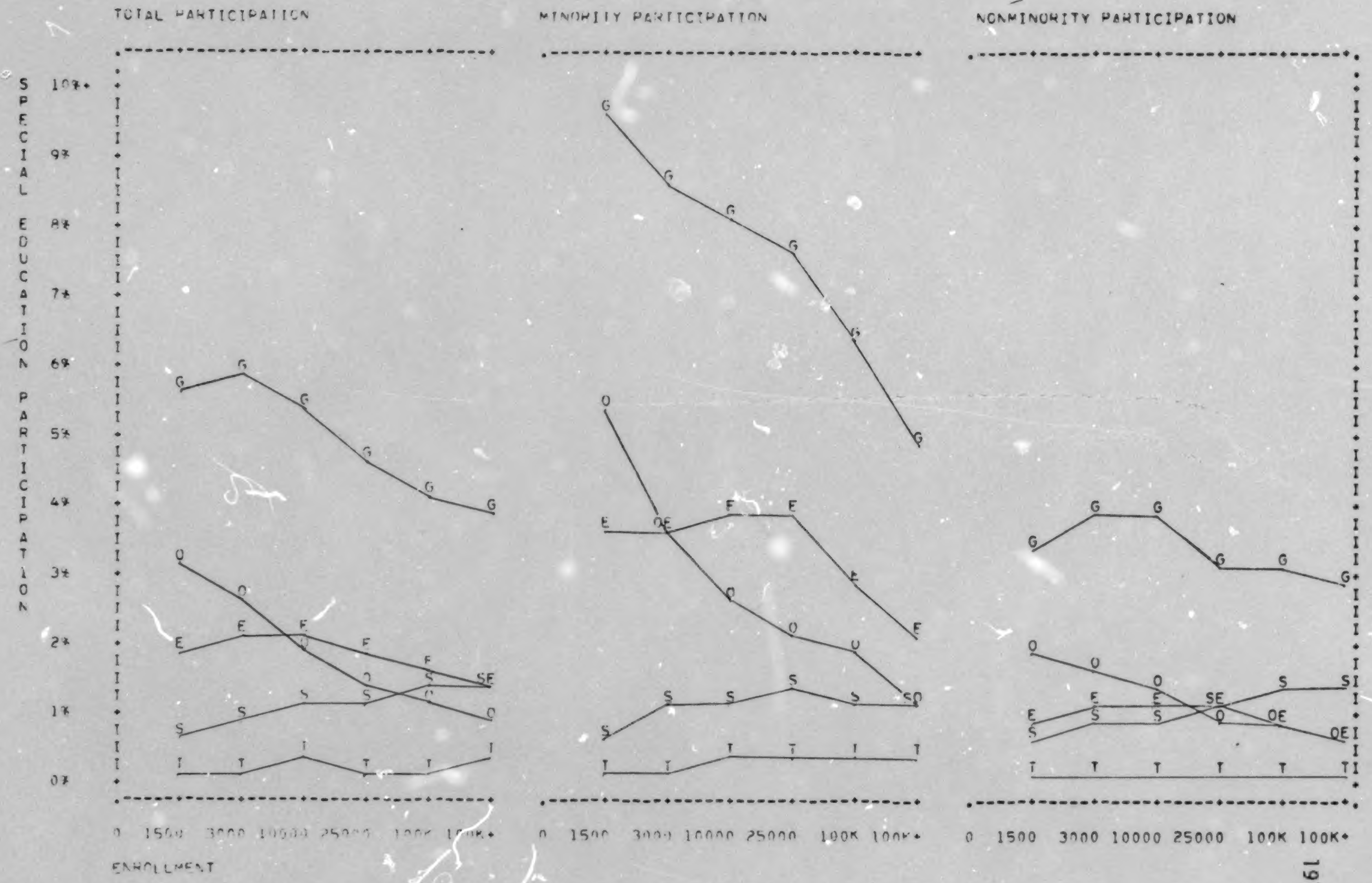
HEW/OASPE

MIDWEST



JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT HEW/OASPE

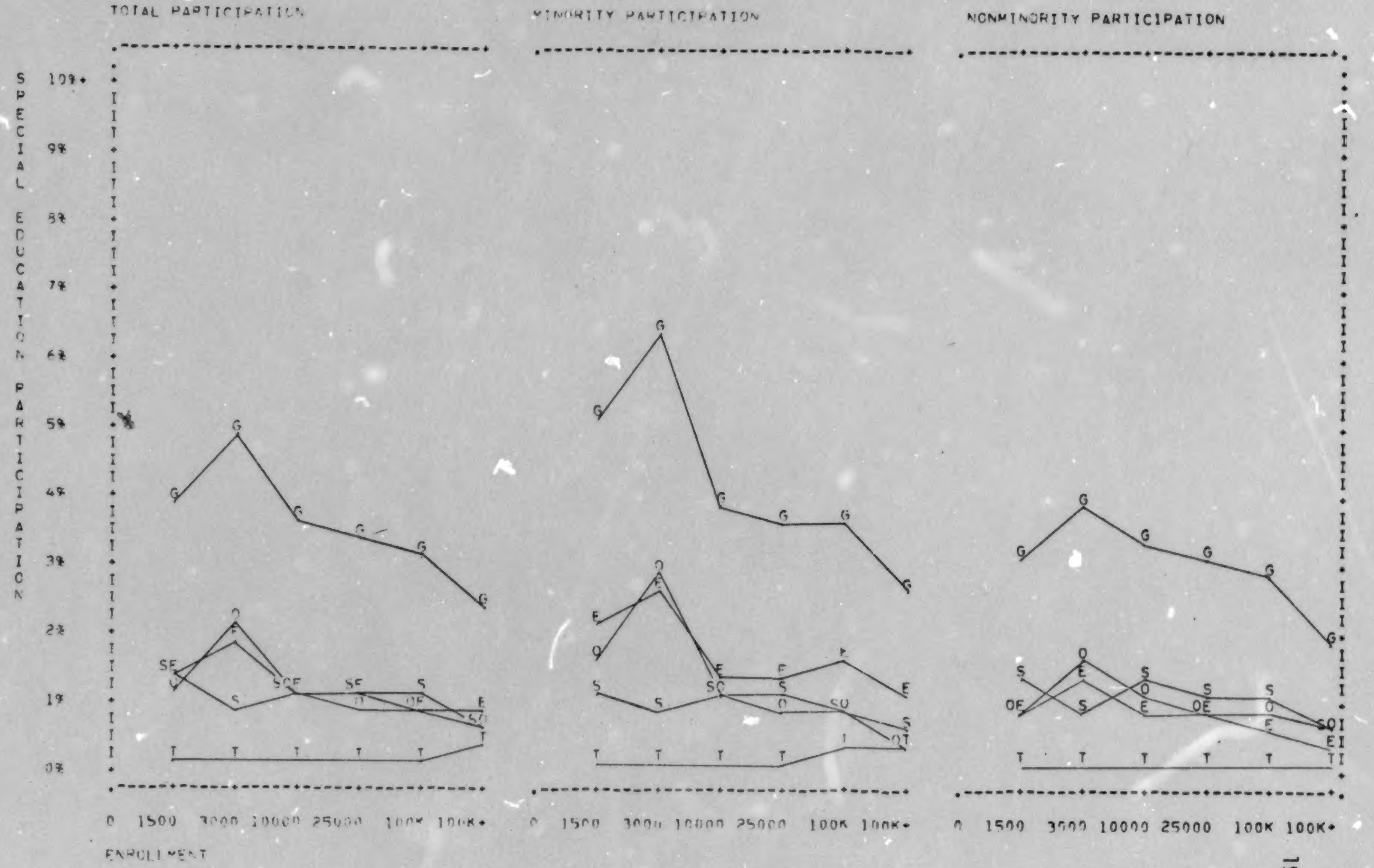
SOUTH



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT HEW/OASPE

WEST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

## Percent Special Education
## Participation by Percent State Revenue:
## Summary Information

Parameter:

Percent State Revenue is defined as the amount of money a state government contributes to a district's revenue as a percent of total district revenue. Percent State Revenue is a rough measure of the state's involvement in a district's educational system. In 1970 the national average was 39% State Revenues.

General Observations:

National Trends: Again, it is minority, not non-minority, behavior which is affected by the socio-economic parameter analyzed. On the national level, there is little change in non-minority participation in any aspect of special education as percent state revenue varies.

However, for minority pupils, several relations emerge which carry over to trends for the total enrollment of the nation. First of all, there is a general rise in minority participation in overall special education as percent state revenue increases. This upward trend is also found in minority participation in EMR and Other programs; in contrast, minority involvement in Special Disabilities falls off as state governments contribute more to district revenue. TMR participation for minority pupils does not appear to depend upon percent state revenue. The behavior of the nation's total enrollment participation follows that of its minority participation, with all trends a little less pronounced.

Northeast Regional Trends: In the Northeast, minority, non-minority and total participation in EMR has a tendency to increase as percent state revenue increases. No other significant trends, with regard to state revenue, arise in this region.

Midwest Regional Trends: Apparently, participation in no aspect of special education is affected by percent state revenue in the Midwest. All curves are either flat or fluctuating and the F test says any possible trends have a good chance of being random fluctuations.

South Regional Trends: In the South, the F test supports observed trends of participation in EMR and Special Disabilities programs as Percent State Revenue varies. For minority, non-minority, and total enrollments, participation in EMR increases and in Special Disabilities declines as state government contributes a bigger percentage of district revenue.

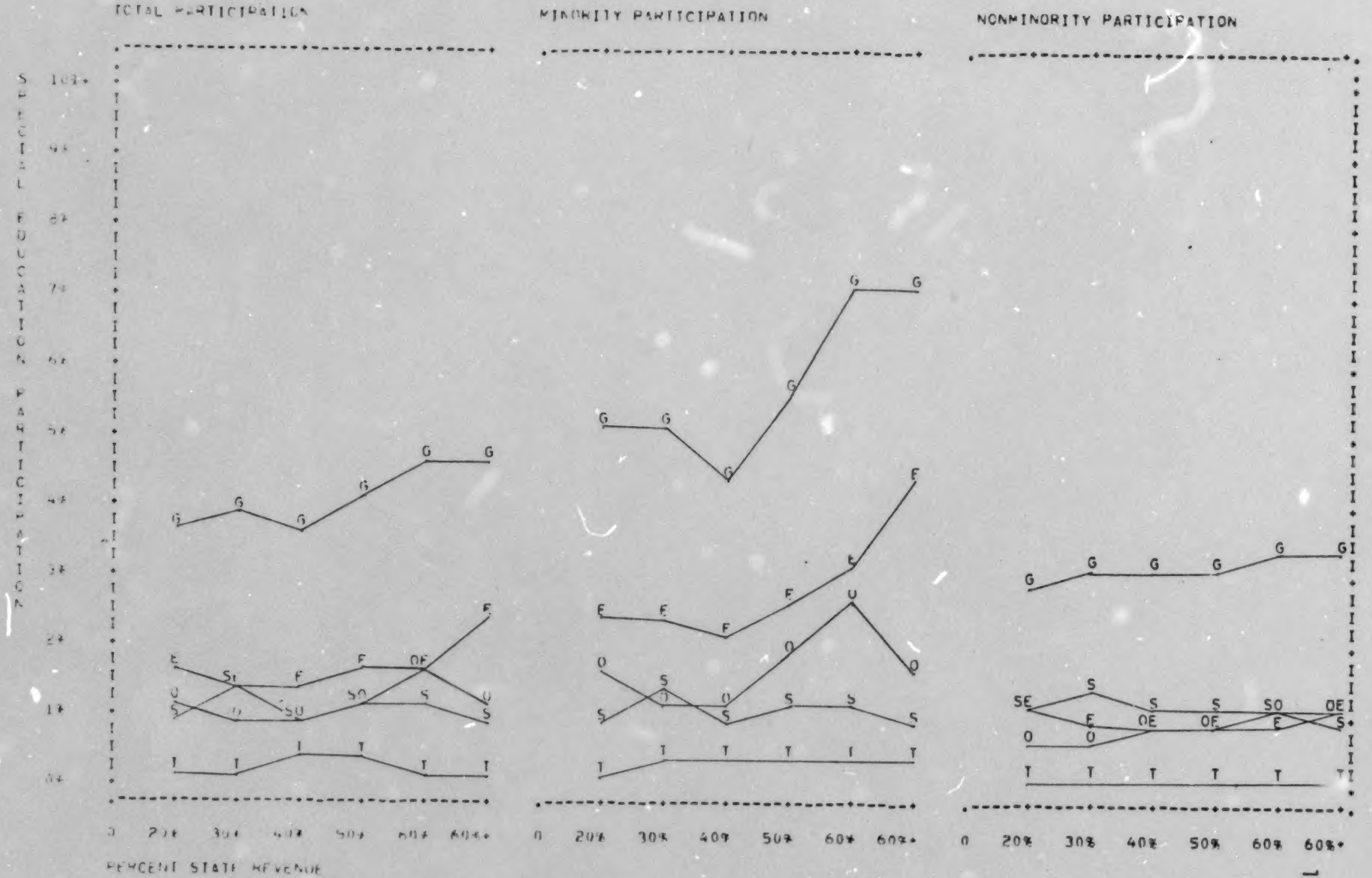
West Regional Trends: The impact of Percent State Revenue upon participation of pupils in all aspects of special education is negligible.

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT STATE REVENUE

| GEOGRAPHIC AREA<br>ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 1.6 | 0.1 | 1.0 | 1.0 | 3.7 | 2.5 | 0.1 | 1.5 | 0.9 | 5.0 | 1.0 | 0.1 | 0.7 | 1.0 | 2.9 | 159 |
| 21-30% STATE REVENUE | 1.5 | 0.2 | 0.9 | 1.3 | 4.0 | 2.4 | 0.3 | 1.1 | 1.4 | 5.2 | 1.0 | 0.2 | 0.7 | 1.3 | 3.2 | 225 |
| 31-40% STATE REVENUE | 1.4 | 0.3 | 1.0 | 1.0 | 3.7 | 2.1 | 0.3 | 1.2 | 0.9 | 4.5 | 0.9 | 0.2 | 0.9 | 1.1 | 3.1 | 294 |
| 41-50% STATE REVENUE | 1.6 | 0.3 | 1.2 | 1.1 | 4.1 | 2.6 | 0.3 | 1.8 | 1.0 | 5.7 | 1.0 | 0.2 | 0.9 | 1.1 | 3.2 | 353 |
| 51-60% STATE REVENUE | 1.7 | 0.2 | 1.7 | 1.1 | 4.7 | 3.1 | 0.4 | 2.6 | 1.1 | 7.1 | 1.0 | 0.2 | 1.2 | 1.1 | 3.5 | 309 |
| OVER 60% STATE REVENUE | 2.3 | 0.2 | 1.2 | 0.8 | 4.6 | 4.4 | 0.3 | 1.5 | 0.8 | 7.1 | 1.2 | 0.2 | 1.1 | 0.8 | 3.3 | 202 |
| F-RATIO | 13.54 | 0.82 | 2.50 | 3.51 | 3.18 | 13.39 | 2.47 | 1.47 | 3.63 | 3.20 | 1.72 | 0.51 | 1.77 | 3.76 | 0.90 | |
| SIGNIFICANCE % | 99.99 | 46.16 | 97.16 | 99.60 | 99.25 | 99.99 | 96.96 | 80.60 | 99.67 | 99.27 | 87.39 | 22.90 | 88.40 | 99.74 | 52.16 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 1.2 | 0.3 | 2.3 | 1.3 | 5.2 | 2.0 | 0.3 | 4.0 | 1.0 | 7.3 | 0.6 | 0.3 | 1.1 | 1.6 | 3.6 | 47 |
| 21-30% STATE REVENUE | 1.5 | 0.3 | 0.8 | 1.0 | 3.6 | 2.2 | 0.3 | 1.2 | 1.1 | 4.7 | 1.0 | 0.3 | 0.5 | 1.0 | 2.8 | 42 |
| 31-40% STATE REVENUE | 0.9 | 0.2 | 1.0 | 0.7 | 2.5 | 1.1 | 0.2 | 1.3 | 0.6 | 3.2 | 0.7 | 0.2 | 0.6 | 0.7 | 2.2 | 19 |
| 41-50% STATE REVENUE | 2.0 | 0.4 | 0.7 | 0.4 | 3.5 | 2.7 | 0.4 | 0.9 | 0.4 | 4.5 | 1.2 | 0.4 | 0.5 | 0.4 | 2.5 | 17 |
| 51-60% STATE REVENUE | 2.1 | 0.3 | 1.1 | 0.7 | 4.2 | 3.7 | 0.4 | 1.9 | 0.5 | 6.4 | 1.5 | 0.2 | 0.7 | 0.8 | 3.2 | 9 |
| OVER 60% STATE REVENUE | 0.8 | 0.2 | 1.0 | 0.5 | 2.4 | 1.9 | 0.2 | 1.2 | 0.5 | 3.9 | 0.6 | 0.2 | 0.9 | 0.5 | 2.1 | 5 |
| F-RATIO | 3.86 | 2.74 | 1.35 | 0.89 | 1.11 | 6.07 | 1.00 | 1.80 | 0.82 | 1.32 | 4.05 | 2.92 | 1.37 | 0.84 | 0.71 | |
| SIGNIFICANCE % | 99.70 | 97.84 | 75.40 | 50.78 | 64.26 | 99.99 | 58.06 | 88.44 | 46.06 | 74.01 | 99.78 | 98.45 | 76.24 | 47.26 | 37.97 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 2.1 | 0.1 | 0.6 | 0.7 | 3.5 | 3.2 | 0.0 | 0.7 | 0.6 | 4.5 | 1.5 | 0.1 | 0.6 | 0.8 | 2.9 | 55 |
| 21-30% STATE REVENUE | 2.2 | 0.3 | 0.7 | 1.6 | 4.8 | 3.1 | 0.3 | 0.9 | 1.7 | 6.0 | 1.5 | 0.3 | 0.6 | 1.4 | 3.9 | 51 |
| 31-40% STATE REVENUE | 1.8 | 0.3 | 0.9 | 0.8 | 3.8 | 2.7 | 0.2 | 0.9 | 0.6 | 4.4 | 1.3 | 0.3 | 0.9 | 1.0 | 3.5 | 60 |
| 41-50% STATE REVENUE | 1.7 | 0.2 | 0.7 | 1.1 | 3.8 | 3.5 | 0.2 | 1.3 | 1.0 | 6.1 | 1.2 | 0.2 | 0.6 | 1.2 | 3.2 | 26 |
| 51-60% STATE REVENUE | 1.1 | 0.2 | 0.8 | 0.6 | 2.7 | 1.4 | 0.3 | 0.6 | 0.2 | 2.5 | 0.9 | 0.2 | 0.9 | 0.9 | 2.9 | 8 |
| OVER 60% STATE REVENUE | 2.5 | 0.0 | 0.5 | 0.0 | 3.0 | 2.9 | 0.0 | 0.6 | 0.0 | 3.5 | 0.1 | 0.0 | 0.3 | 0.0 | 0.4 | 2 |
| F-RATIO | 0.61 | 0.47 | 0.79 | 1.13 | 0.61 | 0.65 | 0.68 | 0.37 | 1.83 | 0.76 | 0.96 | 0.40 | 1.21 | 0.87 | 0.88 | |
| SIGNIFICANCE % | 30.39 | 20.10 | 43.82 | 65.70 | 30.83 | 33.35 | 35.79 | 13.01 | 89.18 | 41.72 | 55.79 | 15.13 | 69.35 | 49.96 | 50.59 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 1.3 | 0.3 | 0.4 | 1.3 | 3.4 | 2.5 | 0.4 | 0.5 | 1.5 | 4.9 | 0.8 | 0.2 | 0.4 | 1.3 | 2.7 | 20 |
| 21-30% STATE REVENUE | 1.3 | 0.2 | 1.2 | 1.5 | 4.2 | 2.6 | 0.3 | 2.0 | 1.7 | 6.6 | 0.7 | 0.2 | 0.9 | 1.5 | 3.3 | 68 |
| 31-40% STATE REVENUE | 1.7 | 0.3 | 1.0 | 1.2 | 4.2 | 3.0 | 0.4 | 1.3 | 1.2 | 5.8 | 0.9 | 0.2 | 0.9 | 1.3 | 3.2 | 129 |
| 41-50% STATE REVENUE | 1.7 | 0.2 | 1.4 | 1.1 | 4.4 | 2.8 | 0.3 | 2.1 | 1.1 | 6.4 | 1.0 | 0.2 | 0.9 | 1.1 | 3.2 | 227 |
| 51-60% STATE REVENUE | 1.9 | 0.2 | 1.9 | 1.1 | 5.2 | 3.6 | 0.4 | 3.2 | 1.2 | 8.4 | 1.0 | 0.2 | 1.3 | 1.1 | 3.6 | 225 |
| OVER 60% STATE REVENUE | 2.5 | 0.2 | 1.3 | 0.8 | 4.8 | 5.0 | 0.4 | 1.6 | 0.8 | 7.8 | 1.3 | 0.2 | 1.1 | 0.8 | 3.3 | 159 |
| F-RATIO | 12.64 | 1.20 | 1.01 | 4.21 | 0.81 | 11.97 | 0.75 | 0.91 | 5.45 | 1.36 | 6.02 | 0.48 | 0.48 | 4.25 | 0.07 | |
| SIGNIFICANCE % | 99.99 | 69.37 | 58.65 | 99.88 | 45.39 | 99.99 | 40.99 | 52.79 | 99.98 | 76.19 | 99.99 | 20.93 | 20.99 | 99.89 | 0.55 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-20% STATE REVENUE | 1.2 | 0.1 | 0.8 | 0.9 | 2.9 | 1.9 | 0.1 | 0.9 | 1.0 | 3.8 | 0.9 | 0.0 | 0.7 | 0.8 | 2.4 | 37 |
| 21-30% STATE REVENUE | 0.9 | 0.2 | 0.8 | 1.0 | 2.9 | 1.4 | 0.3 | 0.7 | 1.0 | 3.3 | 0.6 | 0.1 | 0.8 | 1.1 | 2.7 | 64 |
| 31-40% STATE REVENUE | 1.0 | 0.3 | 1.0 | 0.9 | 3.2 | 1.4 | 0.4 | 0.9 | 0.9 | 3.6 | 0.8 | 0.2 | 1.0 | 1.0 | 3.0 | 86 |
| 41-50% STATE REVENUE | 0.9 | 0.2 | 1.1 | 1.3 | 3.6 | 1.4 | 0.2 | 1.2 | 1.2 | 4.1 | 0.8 | 0.2 | 1.1 | 1.3 | 3.4 | 83 |
| 51-60% STATE REVENUE | 1.0 | 0.2 | 1.0 | 1.0 | 3.2 | 1.3 | 0.3 | 1.1 | 0.8 | 3.4 | 0.8 | 0.2 | 1.0 | 1.1 | 3.1 | 67 |
| OVER 60% STATE REVENUE | 1.3 | 0.2 | 1.0 | 0.7 | 3.3 | 1.8 | 0.3 | 1.2 | 0.7 | 3.9 | 1.0 | 0.2 | 0.9 | 0.7 | 2.9 | 36 |
| F-RATIO | 1.17 | 3.65 | 0.70 | 1.59 | 0.69 | 0.99 | 2.07 | 0.58 | 1.39 | 1.23 | 0.24 | 3.32 | 0.87 | 1.63 | 1.08 | |
| SIGNIFICANCE % | 67.47 | 99.65 | 37.59 | 84.00 | 36.96 | 57.73 | 93.20 | 28.35 | 77.56 | 70.70 | 5.62 | 99.37 | 49.53 | 84.96 | 62.83 | |

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT STATE REVENUE HEW/OASPE

NATION

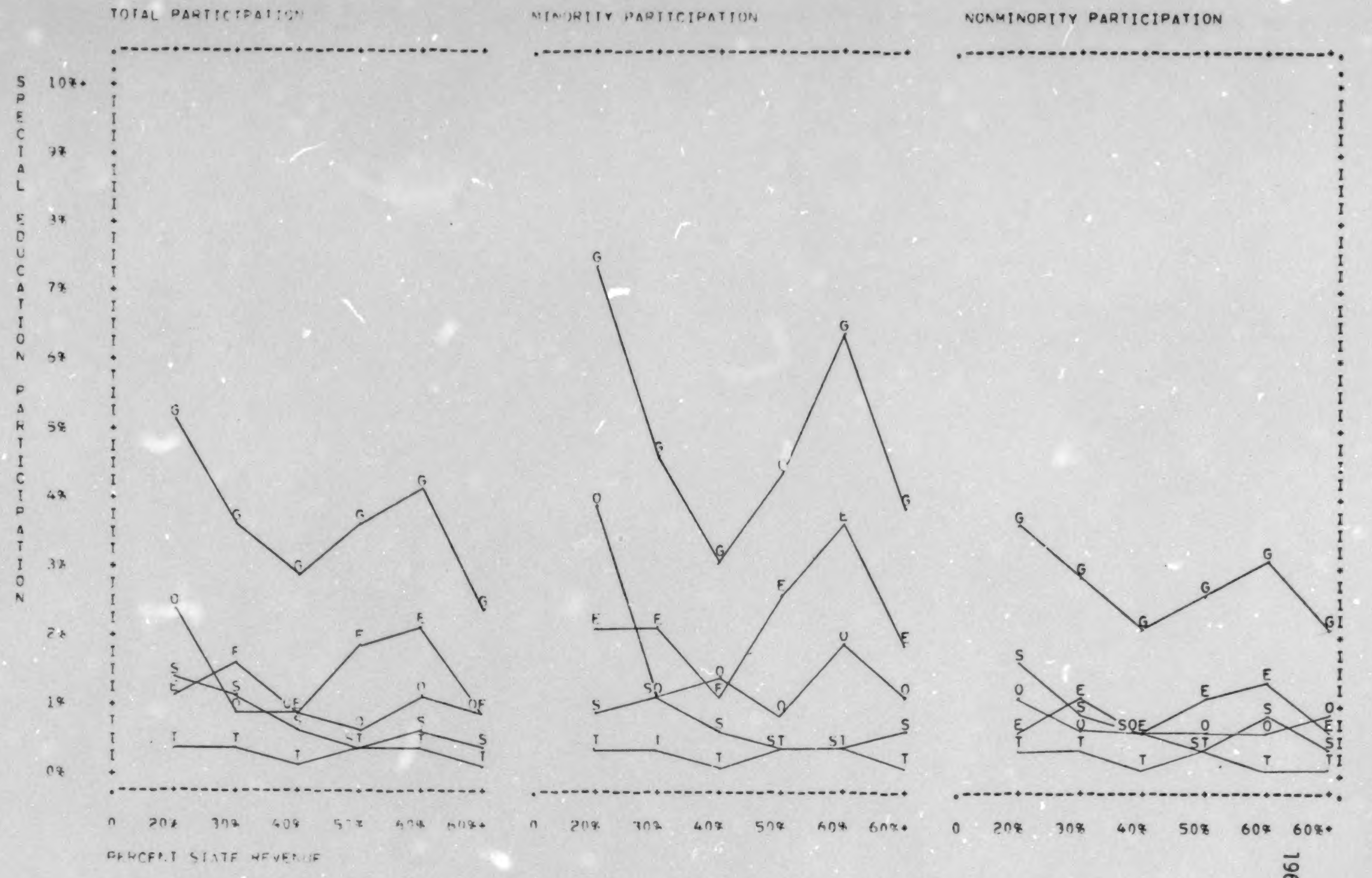


PERCENT STATE REVENUE

KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT STATE REVENUE HEW/OASPE

NORTHEAST

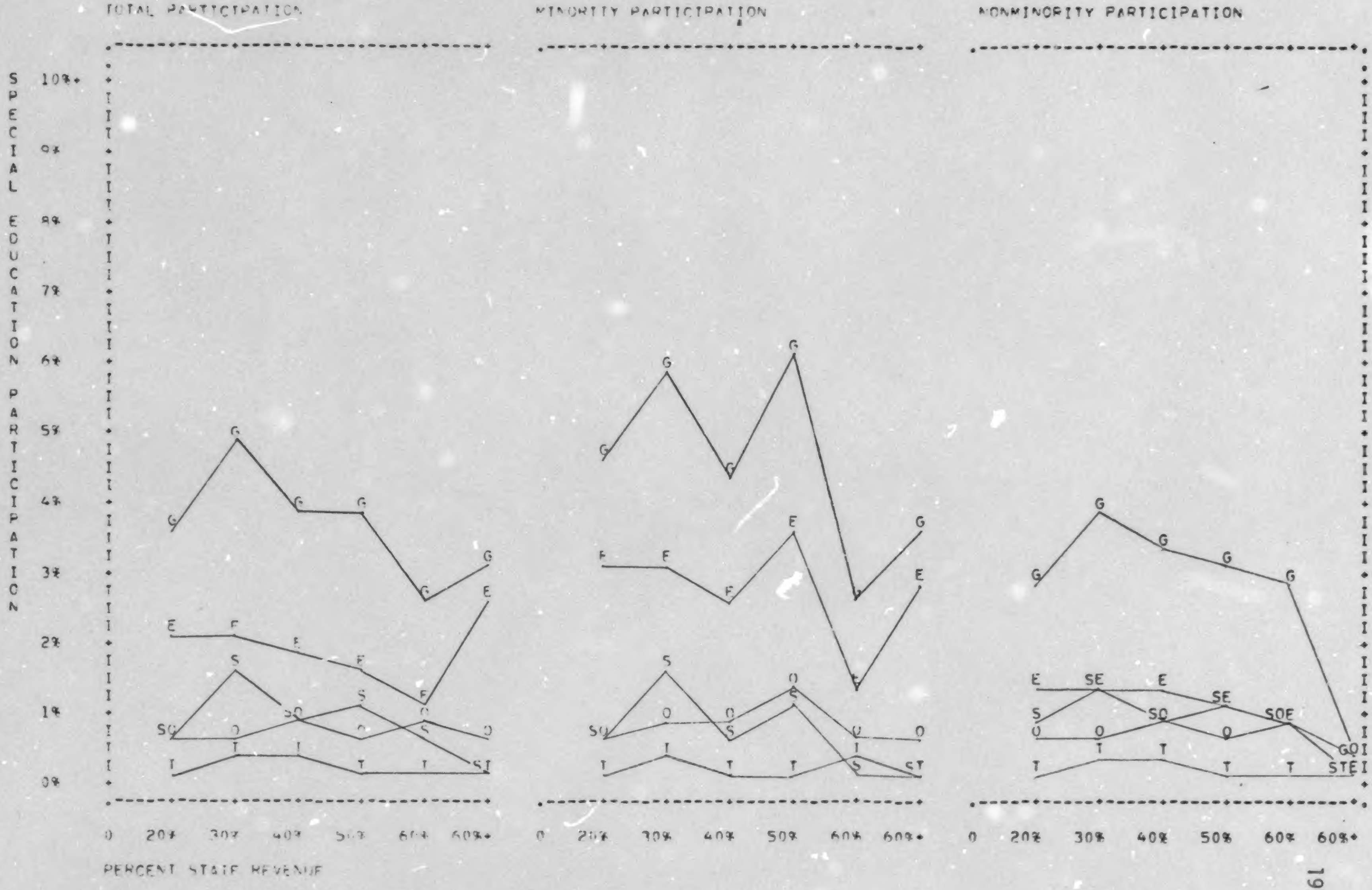

TOTAL PARTICIPATION

MINORITY PARTICIPATION

NONMINORITY PARTICIPATION

KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

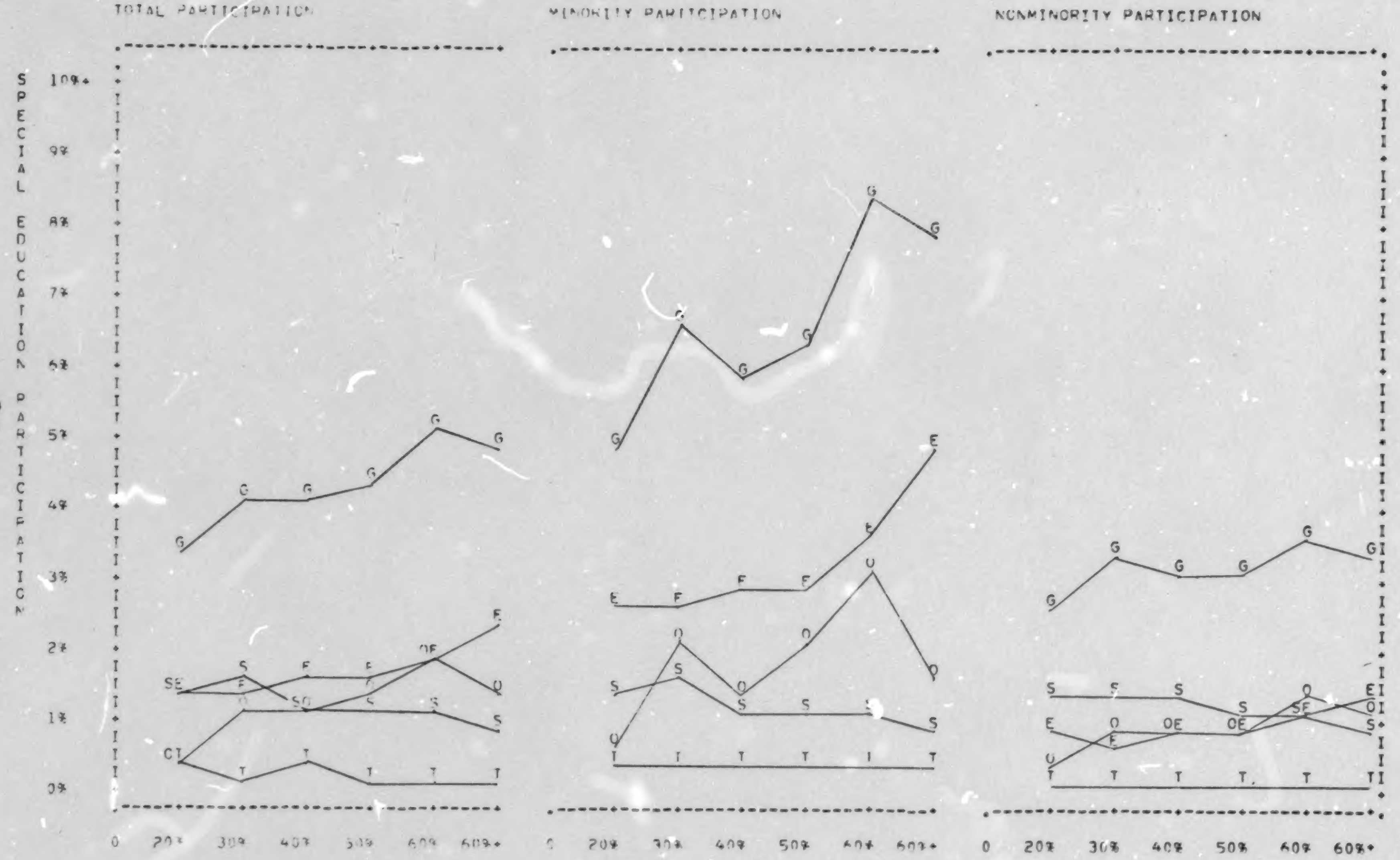
MIDWEST



KEY: EMR=E INR=I OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT STATE REVENUE HEW/OASPE

SOUTH

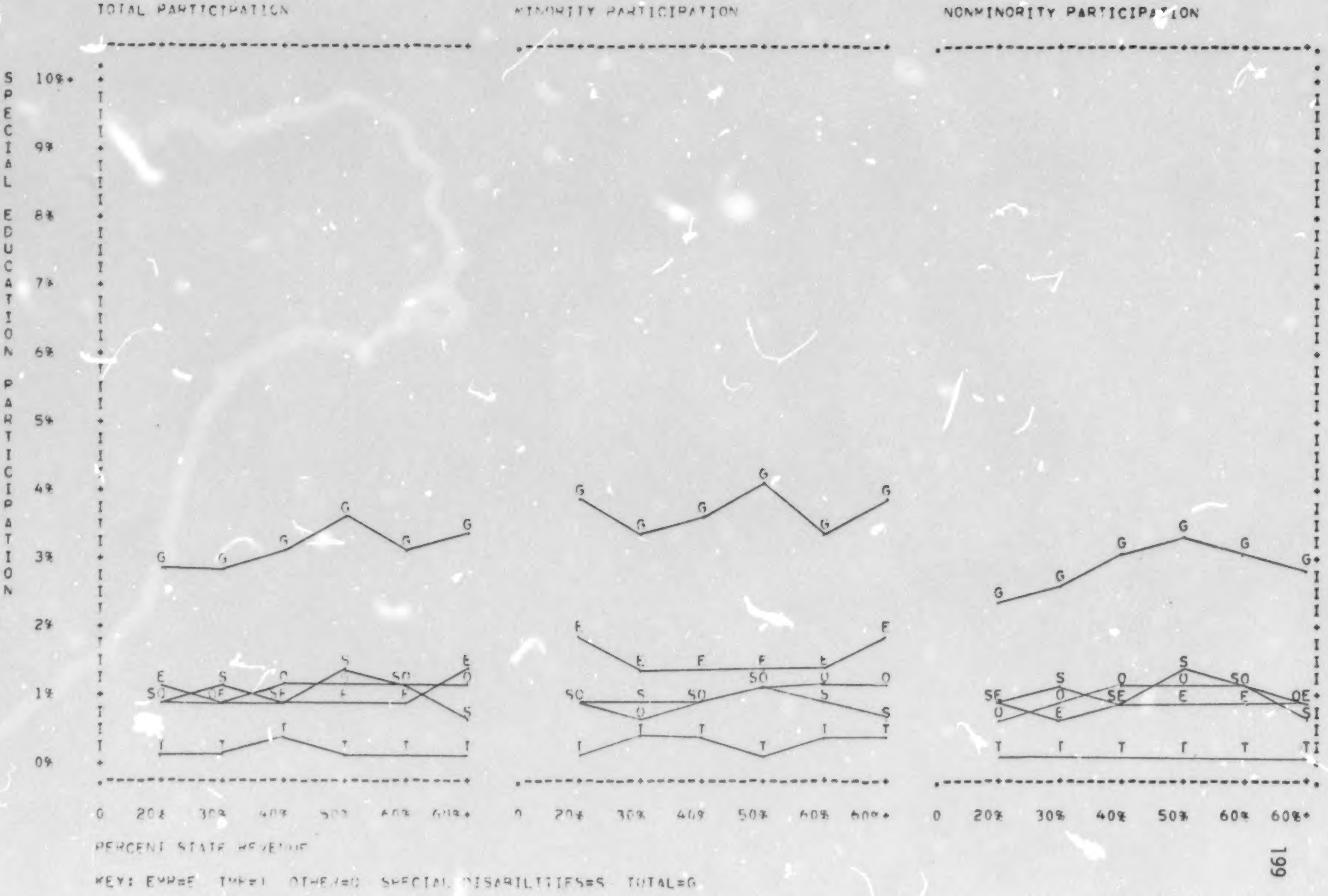


PERCENT STATE REVENUE

KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT STATE REVENUE HEW/OASPE

WEST



# Percent Special Education
# Participation by % Title I Revenues:
# Summary Information

## Parameter:

% Title I Revenues is the percentage of Federal income received by a district which is ESEA Title I money. % Title I Revenues indicates the degree which a district depends upon Title I Award money for Federal support. Also, Title I Revenues are partially directed at children who are slow learners and are placed in Other programs.

## General Observations:

National Trends: Percent Title I Revenues has a wide-ranging effect on the participation of all enrollments in all areas of special education. Again, non-minority participation in overall special education is constant but participation within the individual aspects of special education shifts. For minority pupils, participation in overall special education grows as percent Title I Revenues increase, due to trends of participation in the component programs.

For minority students, an overall increase in participation in special education results from increasing participation in EMR and Other programs as percent Title I Revenues rises. Partially negating these increases is a decline in minority involvement in Special Disabilities programs.

For non-minority pupils, there are slight upward trends in participation in EMR and Other programs and a slight downward trend in Special Disabilities participation as the proportion of Title I Award money in a district's Federal income becomes larger. The net result is a participation in overall special education which is constant with regard to Percent Title I Revenues.

For the nation's total enrollment, participation in EMR, Other, and total special education programs rises and in Special Disabilities programs falls as Percent Title I Revenues increases.

Northeast Regional Trends: No statistically meaningful trends in special education participation surface when the impact of Title I Revenues upon a district's Federal income is analyzed.

Midwest Regional Trends: For all enrollments, participation in overall special education increases as Percent Title I Revenues increases. These trends are directly attributable to one aspect of special education: Other programs. In the Midwest, minority, non-minority and total participation in Other programs clearly increases as the percentage of Title I funds in a district's Federal income increases.

South Regional Trends: There is a definite and statistically significant increase in total participation as percent Title I Revenues increases in the South. This increase is most noticeable in Other and EMR program participation. In contrast, involvement in Special Disabilities programs falls off as percent Title I Revenues in districts rise.

As is the common pattern in these analyses, trends are more dramatic for minority pupils than for non-minority pupils. For minority students, there are clear increases in Other and overall special education programs and decreases in Special Disabilities programs as percent Title I Revenues rises. For non-minority students, participation in all special education programs is nearly constant. A rise in Other programs involvement is balanced by a fall in Special Disabilities involvement as percent Title I Revenues increases.

West Regional Trends: The curves depicting special education participation's relation to Title I Revenues in the West would often occur, according to the F test, as a product of chance fluctuations.

AUG 04, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY % TITLE I REVENUES HEW/OASPE

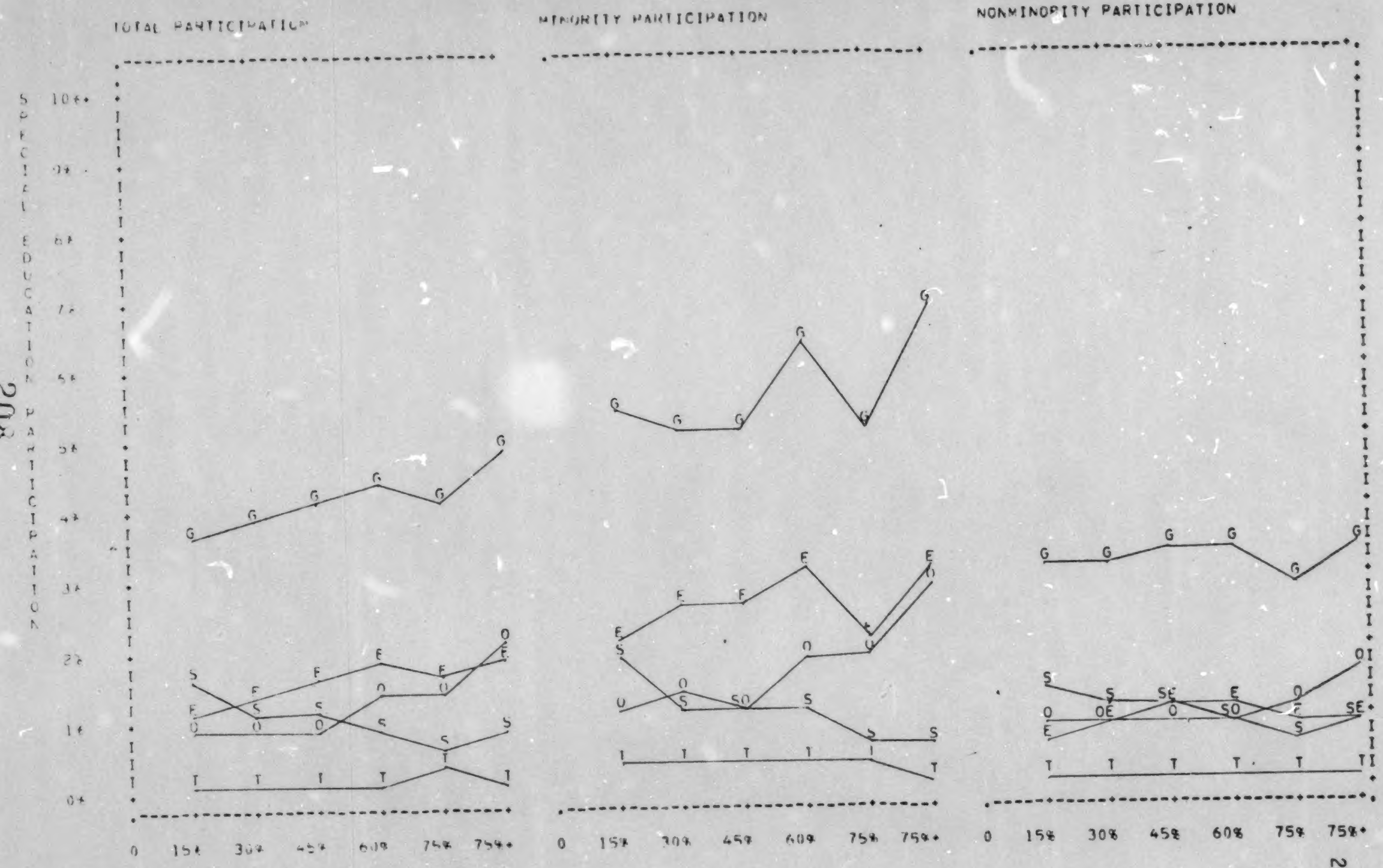
| GEOGRAPHIC AREA<br>ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 00-15% TITLE I MONEY | 1.0 | 0.2 | 0.9 | 1.5 | 3.7 | 2.0 | 0.3 | 1.2 | 1.9 | 5.4 | 0.7 | 0.2 | 0.8 | 1.4 | 3.2 | 248 |
| 16-30% TITLE I MONEY | 1.4 | 0.2 | 1.0 | 1.1 | 3.8 | 2.5 | 0.3 | 1.3 | 1.0 | 5.2 | 1.0 | 0.2 | 0.9 | 1.1 | 3.2 | 259 |
| 31-45% TITLE I MONEY | 1.7 | 0.2 | 1.0 | 1.1 | 4.1 | 2.6 | 0.3 | 1.2 | 1.1 | 5.2 | 1.1 | 0.2 | 0.8 | 1.2 | 3.3 | 339 |
| 46-60% TITLE I MONEY | 1.9 | 0.2 | 1.3 | 1.0 | 4.4 | 3.2 | 0.3 | 1.9 | 1.0 | 6.4 | 1.1 | 0.2 | 1.0 | 0.9 | 3.3 | 296 |
| 61-75% TITLE I MONEY | 1.6 | 0.3 | 1.4 | 0.7 | 4.0 | 2.2 | 0.3 | 1.8 | 0.7 | 5.1 | 1.0 | 0.2 | 1.0 | 0.7 | 2.9 | 275 |
| OVER 75% TITLE I MONEY | 1.9 | 0.2 | 2.1 | 0.8 | 5.0 | 3.1 | 0.2 | 2.8 | 0.7 | 6.8 | 0.9 | 0.1 | 1.5 | 0.8 | 3.4 | 125 |
| F-RATIO | 10.34 | 1.48 | 5.56 | 2.93 | 4.36 | 5.55 | 1.41 | 4.46 | 3.23 | 3.18 | 2.30 | 2.45 | 3.29 | 3.79 | 0.32 | |
| SIGNIFICANCE % | 99.99 | 60.77 | 99.99 | 98.76 | 99.91 | 99.99 | 78.43 | 99.92 | 99.32 | 99.25 | 95.80 | 96.88 | 99.39 | 99.76 | 10.00 | |
| NORTH-EAST | | | | | | | | | | | | | | | | |
| 00-15% TITLE I MONEY | 1.2 | 0.2 | 0.7 | 0.6 | 2.6 | 2.1 | 0.2 | 0.9 | 0.3 | 3.5 | 0.7 | 0.2 | 0.6 | 0.7 | 2.2 | 11 |
| 16-30% TITLE I MONEY | 1.1 | 0.2 | 1.4 | 1.4 | 4.1 | 1.8 | 0.3 | 2.7 | 1.3 | 6.1 | 0.8 | 0.2 | 1.0 | 1.4 | 3.4 | 17 |
| 31-45% TITLE I MONEY | 2.1 | 0.4 | 0.7 | 0.7 | 3.8 | 2.9 | 0.4 | 0.9 | 0.5 | 4.7 | 1.3 | 0.4 | 0.5 | 0.8 | 3.0 | 28 |
| 46-60% TITLE I MONEY | 1.4 | 0.3 | 0.9 | 1.1 | 3.7 | 2.0 | 0.3 | 1.4 | 1.3 | 4.9 | 0.9 | 0.3 | 0.7 | 1.0 | 2.8 | 31 |
| 61-75% TITLE I MONEY | 1.1 | 0.3 | 1.3 | 0.7 | 3.3 | 1.3 | 0.3 | 1.8 | 0.6 | 3.9 | 0.8 | 0.3 | 0.6 | 0.7 | 2.4 | 29 |
| OVER 75% TITLE I MONEY | 1.3 | 0.2 | 0.8 | 1.0 | 3.3 | 2.1 | 0.2 | 0.9 | 1.1 | 4.3 | 0.6 | 0.2 | 0.7 | 1.0 | 2.5 | 23 |
| F-RATIO | 1.10 | 0.78 | 0.50 | 0.33 | 0.70 | 0.99 | 1.57 | 0.41 | 0.40 | 0.52 | 0.91 | 0.85 | 0.31 | 0.37 | 0.47 | |
| SIGNIFICANCE % | 63.38 | 43.52 | 22.31 | 10.82 | 37.31 | 57.30 | 82.86 | 15.64 | 15.38 | 23.81 | 52.47 | 47.93 | 9.49 | 12.93 | 19.93 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-15% TITLE I MONEY | 1.4 | 0.2 | 0.5 | 0.7 | 2.9 | 3.0 | 0.3 | 0.8 | 0.7 | 4.7 | 1.0 | 0.2 | 0.5 | 0.7 | 2.4 | 33 |
| 16-30% TITLE I MONEY | 2.1 | 0.3 | 0.9 | 0.9 | 4.3 | 3.1 | 0.3 | 1.1 | 0.6 | 5.1 | 1.7 | 0.3 | 0.8 | 1.1 | 3.9 | 40 |
| 31-45% TITLE I MONEY | 2.1 | 0.2 | 0.7 | 1.3 | 4.4 | 3.0 | 0.2 | 0.7 | 1.4 | 5.3 | 1.4 | 0.2 | 0.7 | 1.3 | 3.6 | 64 |
| 46-60% TITLE I MONEY | 1.8 | 0.3 | 0.6 | 0.9 | 3.7 | 2.7 | 0.3 | 0.8 | 0.8 | 4.6 | 1.4 | 0.3 | 0.6 | 1.0 | 3.2 | 32 |
| 61-75% TITLE I MONEY | 1.9 | 0.3 | 1.5 | 0.8 | 4.5 | 3.4 | 0.2 | 1.8 | 0.8 | 6.3 | 1.1 | 0.3 | 1.3 | 0.8 | 3.5 | 21 |
| OVER 75% TITLE I MONEY | 2.3 | 0.0 | 2.1 | 1.2 | 5.7 | 3.7 | 0.0 | 3.6 | 0.7 | 8.0 | 1.6 | 0.1 | 1.3 | 1.5 | 4.5 | 12 |
| F-RATIO | 0.60 | 1.36 | 3.03 | 0.23 | 1.64 | 0.66 | 1.90 | 2.30 | 0.84 | 1.78 | 0.42 | 1.18 | 3.10 | 0.37 | 1.29 | |
| SIGNIFICANCE % | 29.95 | 76.00 | 98.81 | 5.27 | 84.96 | 34.32 | 90.41 | 95.38 | 47.46 | 88.32 | 16.37 | 68.00 | 98.96 | 13.27 | 73.29 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-15% TITLE I MONEY | 1.0 | 0.3 | 0.9 | 1.8 | 4.0 | 2.1 | 0.3 | 1.2 | 2.2 | 5.8 | 0.7 | 0.2 | 0.8 | 1.6 | 3.3 | 110 |
| 16-30% TITLE I MONEY | 1.7 | 0.3 | 0.9 | 1.2 | 4.1 | 3.5 | 0.4 | 1.5 | 1.3 | 6.6 | 1.0 | 0.2 | 0.7 | 1.2 | 3.1 | 91 |
| 31-45% TITLE I MONEY | 1.7 | 0.2 | 1.4 | 1.1 | 4.4 | 2.8 | 0.3 | 2.1 | 1.0 | 6.3 | 1.0 | 0.2 | 0.9 | 1.2 | 3.2 | 165 |
| 46-60% TITLE I MONEY | 2.2 | 0.3 | 1.6 | 1.0 | 5.0 | 3.9 | 0.4 | 2.3 | 1.1 | 7.6 | 1.1 | 0.2 | 1.2 | 0.9 | 3.4 | 185 |
| 61-75% TITLE I MONEY | 2.5 | 0.3 | 1.7 | 0.8 | 5.2 | 4.1 | 0.4 | 2.0 | 0.9 | 7.4 | 1.2 | 0.2 | 1.5 | 0.6 | 3.5 | 199 |
| OVER 75% TITLE I MONEY | 2.3 | 0.1 | 3.1 | 0.6 | 6.2 | 3.7 | 0.2 | 4.1 | 0.5 | 8.5 | 1.0 | 0.1 | 2.2 | 0.7 | 4.0 | 78 |
| F-RATIO | 5.97 | 2.17 | 5.31 | 3.70 | 4.18 | 1.17 | 1.58 | 4.21 | 3.41 | 2.00 | 1.54 | 4.53 | 3.67 | 5.07 | 1.57 | |
| SIGNIFICANCE % | 99.99 | 94.52 | 99.98 | 99.71 | 99.89 | 67.70 | 83.71 | 99.88 | 99.50 | 92.48 | 82.68 | 99.93 | 99.69 | 99.97 | 84.05 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-15% TITLE I MONEY | 0.9 | 0.2 | 1.2 | 1.2 | 3.5 | 1.5 | 0.2 | 1.4 | 1.5 | 4.7 | 0.7 | 0.2 | 1.1 | 1.2 | 3.2 | 94 |
| 16-30% TITLE I MONEY | 1.0 | 0.2 | 1.0 | 1.0 | 3.3 | 1.6 | 0.3 | 1.1 | 0.9 | 3.8 | 0.8 | 0.2 | 1.0 | 1.1 | 3.1 | 111 |
| 31-45% TITLE I MONEY | 1.0 | 0.2 | 0.7 | 1.0 | 3.0 | 1.4 | 0.3 | 0.6 | 0.9 | 3.2 | 0.7 | 0.2 | 0.7 | 1.1 | 2.7 | 82 |
| 46-60% TITLE I MONEY | 1.0 | 0.1 | 1.0 | 0.8 | 3.0 | 1.2 | 0.2 | 1.1 | 0.6 | 3.1 | 0.9 | 0.1 | 1.0 | 0.9 | 3.0 | 48 |
| 61-75% TITLE I MONEY | 0.8 | 0.1 | 0.5 | 0.7 | 2.1 | 1.1 | 0.2 | 0.4 | 0.8 | 2.5 | 0.6 | 0.1 | 0.6 | 0.6 | 1.8 | 26 |
| OVER 75% TITLE I MONEY | 1.3 | 0.3 | 0.8 | 0.4 | 2.9 | 2.1 | 0.3 | 0.8 | 0.3 | 3.6 | 0.8 | 0.2 | 0.8 | 0.5 | 2.4 | 12 |
| F-RATIO | 1.20 | 0.75 | 1.11 | 1.38 | 0.37 | 1.34 | 0.58 | 1.46 | 1.85 | 1.36 | 0.84 | 0.72 | 1.20 | 1.[illegible]5 | 0.83 | |
| SIGNIFICANCE % | 69.10 | 41.00 | 64.33 | 76.84 | 49.48 | 75.50 | 28.27 | 79.81 | 89.8[illegible] | 76.40 | 47.69 | 38.87 | 69.38 | 66.91 | 46.68 | |

JUN 27, 1975

HEW/OASPE

## PERCENT SPECIAL EDUCATION PARTICIPATION BY % TITLE I REVENUES

### NATION

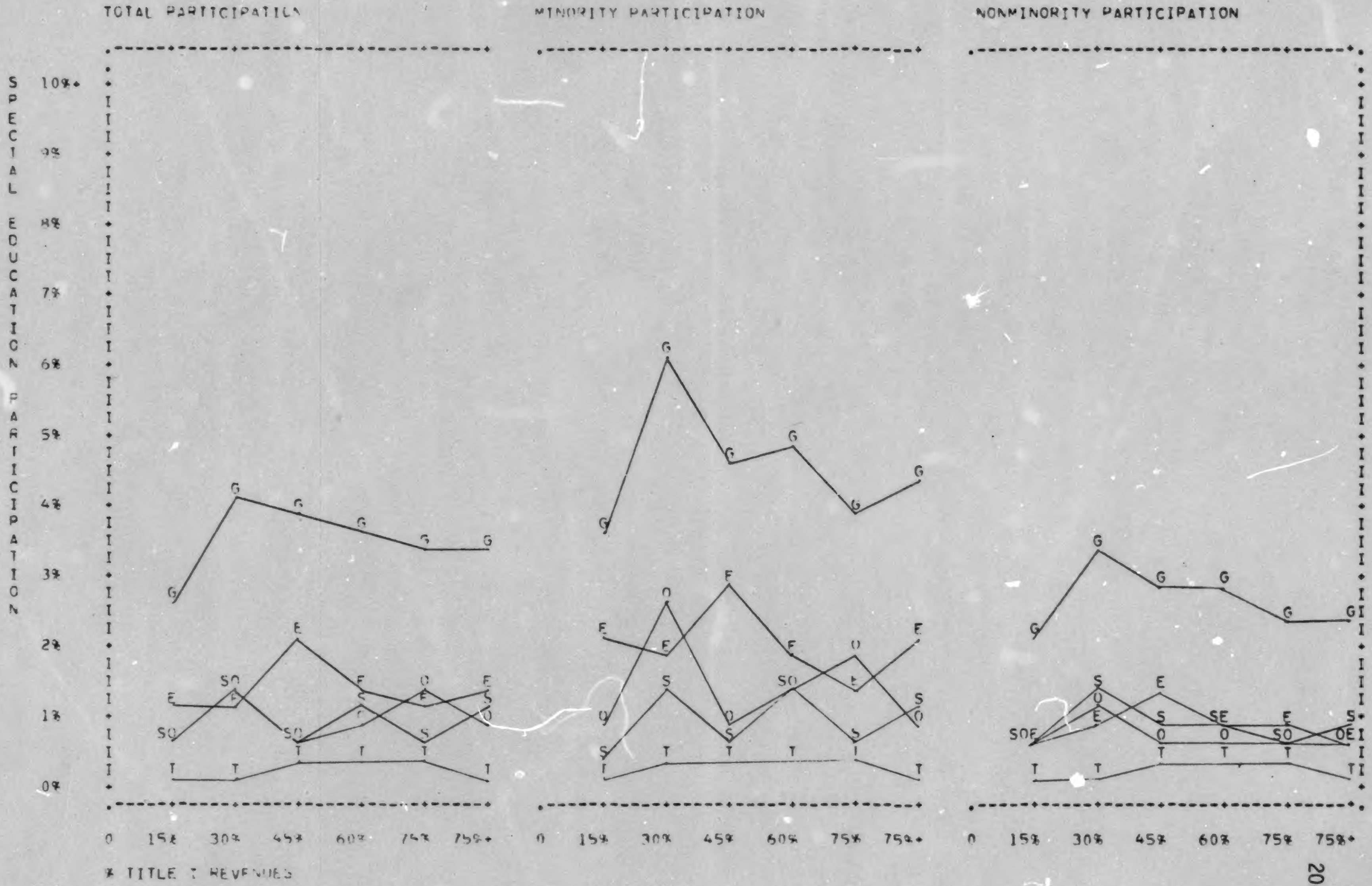


% TITLE I REVENUES

KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY % TITLE I REVENUES HEW/OASPE

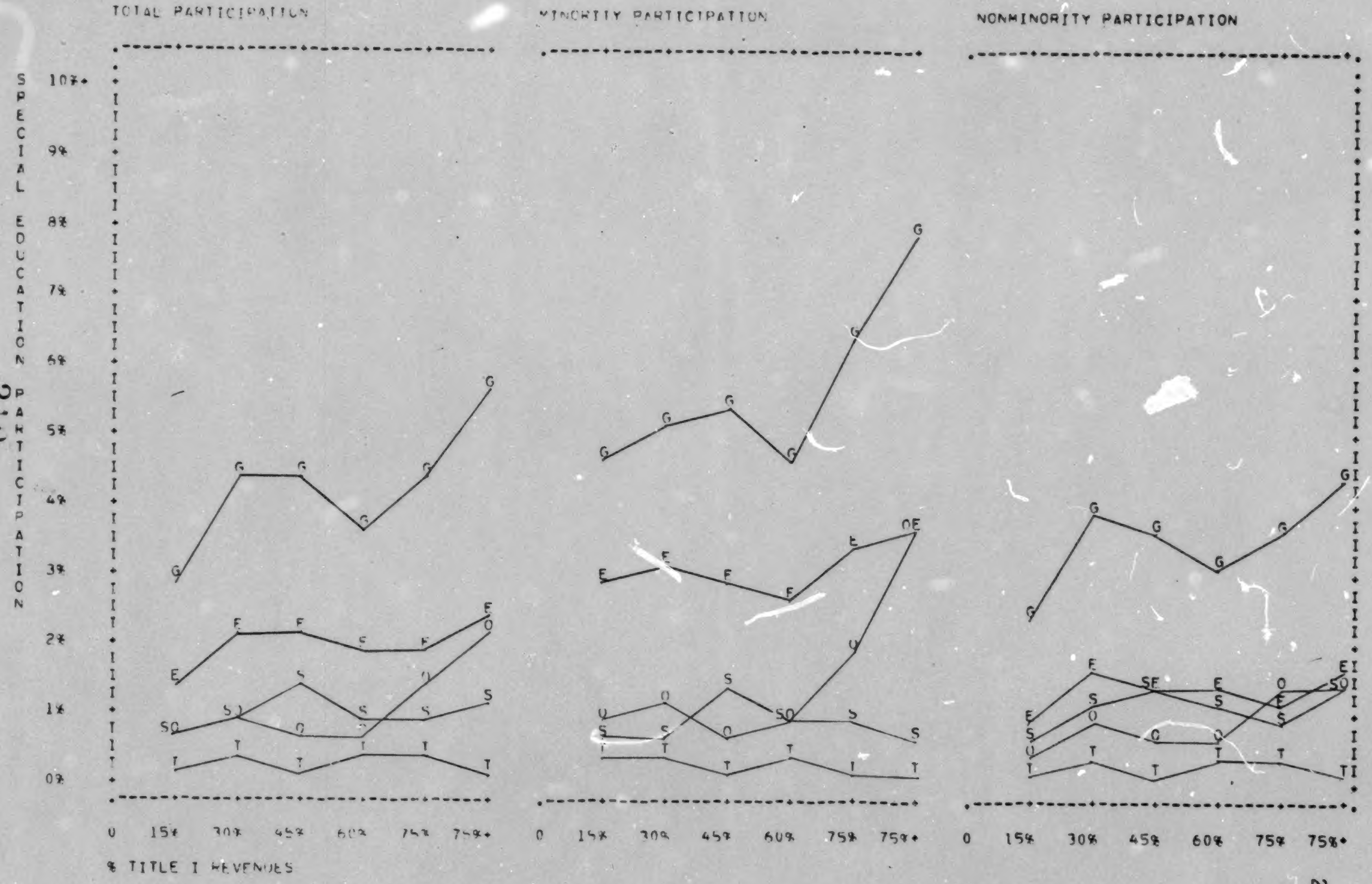
NORTHEAST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY % TITLE I REVENUES HEW/OASPE

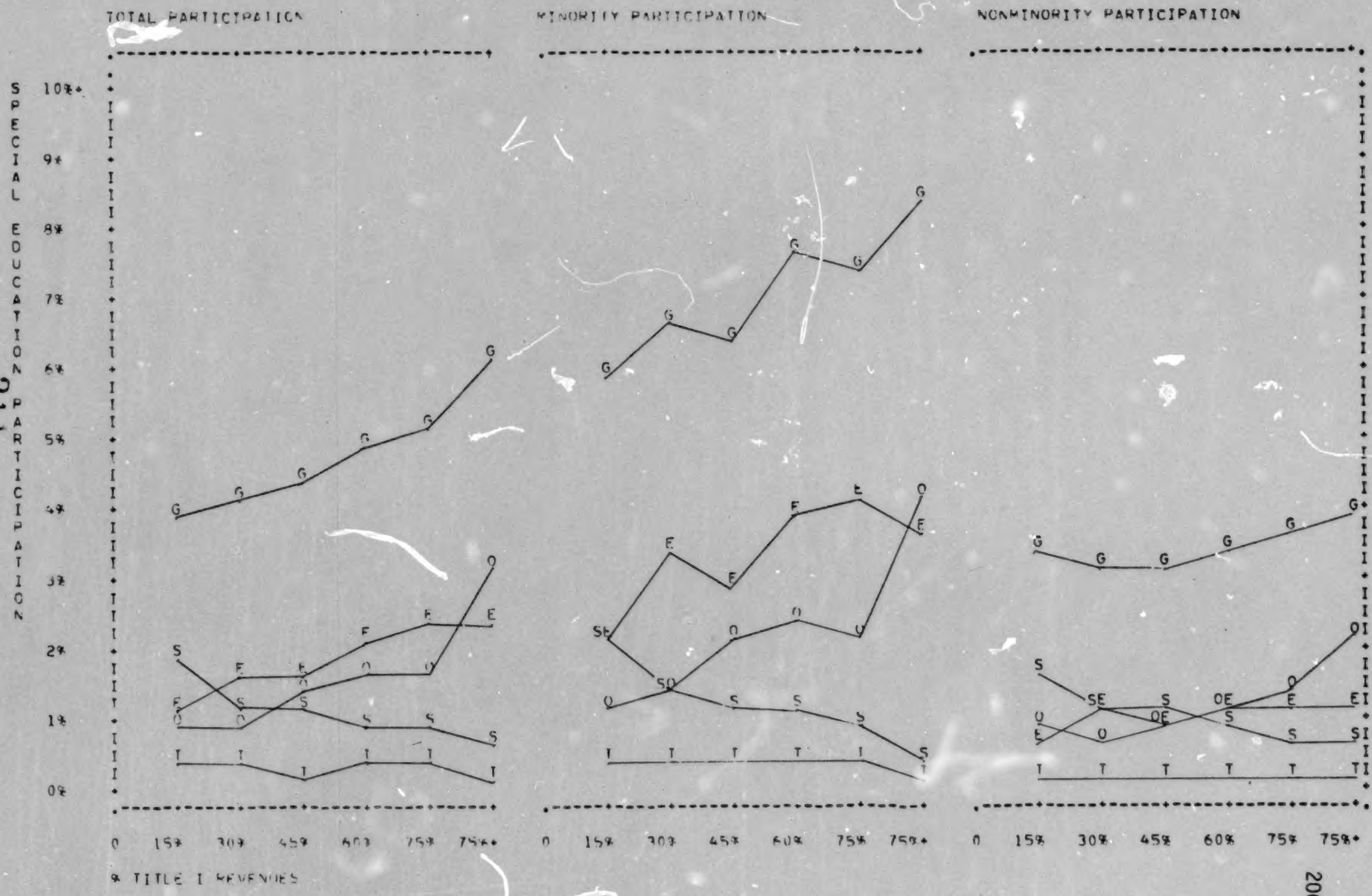
MIDWEST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY % TITLE I REVENUES HEW/OASPE

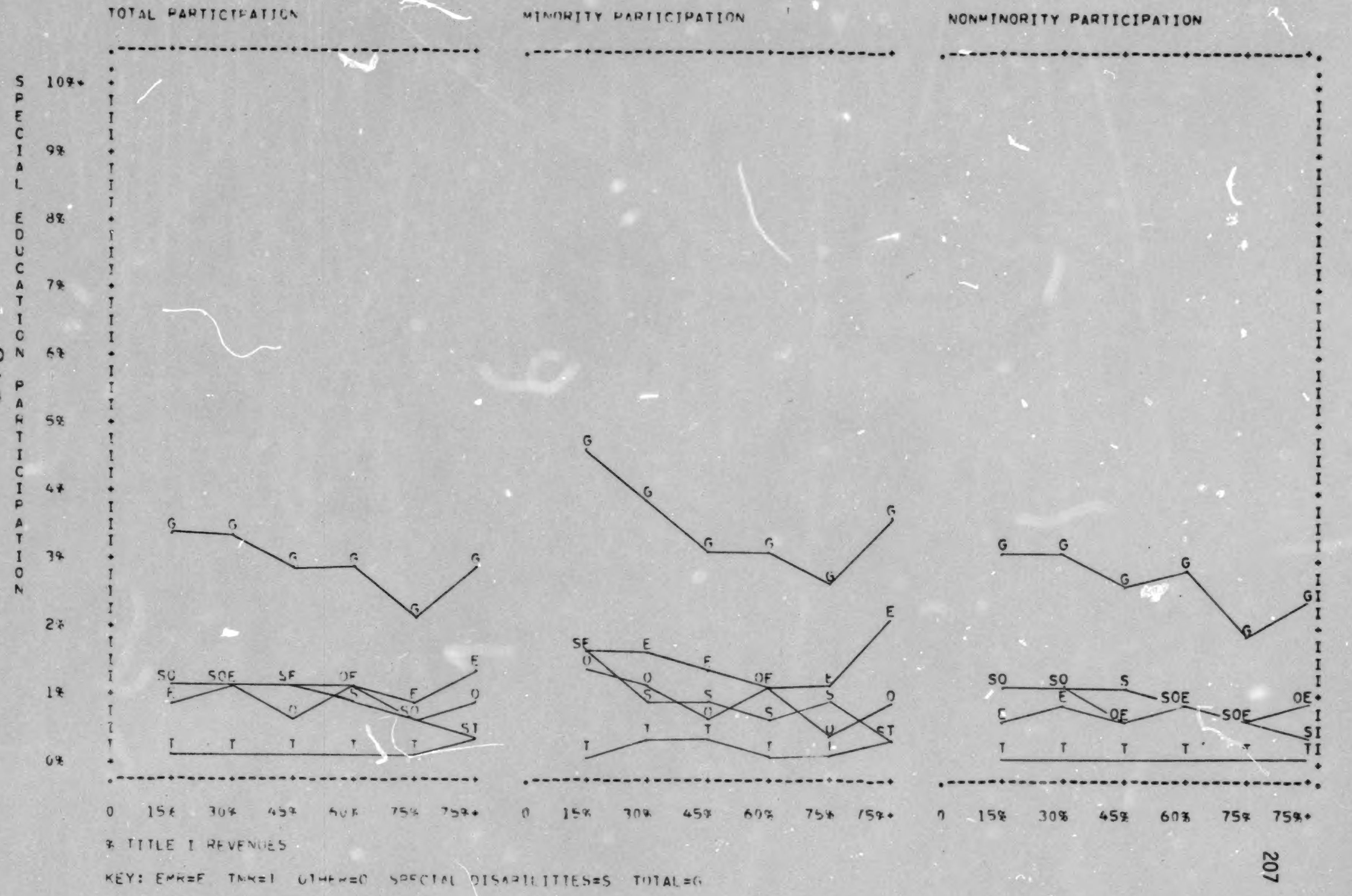
SOUTH



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

# PERCENT SPECIAL EDUCATION PARTICIPATION BY % TITLE I REVENUES

WEST



# Percent Special Education
# Participation by Percent Burden:
# Summary Information

## Parameter:

Percent Burden is defined to be the percentage of a person's income going to educational purposes. It is calculated by dividing a district's per pupil expenditure by its per capita income. Percent Burden measures the financial strain a district's educational system places on its inhabitants.

## General Observations:

National Trends: Trends in national participation in special education as percent Burden varies are not clearcut. For minority, non-minority and total enrollments, there appears to be an increase in EMR participation, a decrease in Special Disabilities participation, and an increase in total special education participation as percent Burden rises. Involvement in TMR and Other programs seems to be insensitive to a district's percent Burden, for all enrollments.

Northeast Regional Trends: The only observed trend in the Northeast which is backed up by a high F Ratio concerns the participation of the total enrollment in EMR. Involvement in this aspect of special education increases as percent Burden grows.

Midwest Regional Trends: In the Midwest, participation rates in all aspects of special education change drastically as percent Burden increases. However, these changes fit no simple pattern. If percent Burden has an impact upon special education participation, it is too complicated to be explained using the available data.

South Regional Trends: For the South's total enrollment, several statistically meaningful trends emerge. Total participation rises as percent Burden increases. Involvement in EMR and Other programs rises and involvement in Special Disabilities programs falls as percent Burden increases.

For minority and non-minority enrollments, the clearest trend is in Special Disabilities participation: it clearly declines as percent Burden rises.

West Regional Trends: No intuitively interpreted relationships between participation in special education and districts' percent Burden emerge in a study of special education for the West.

AUG 04, 1975

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT BURDEN

HEW/OASPE

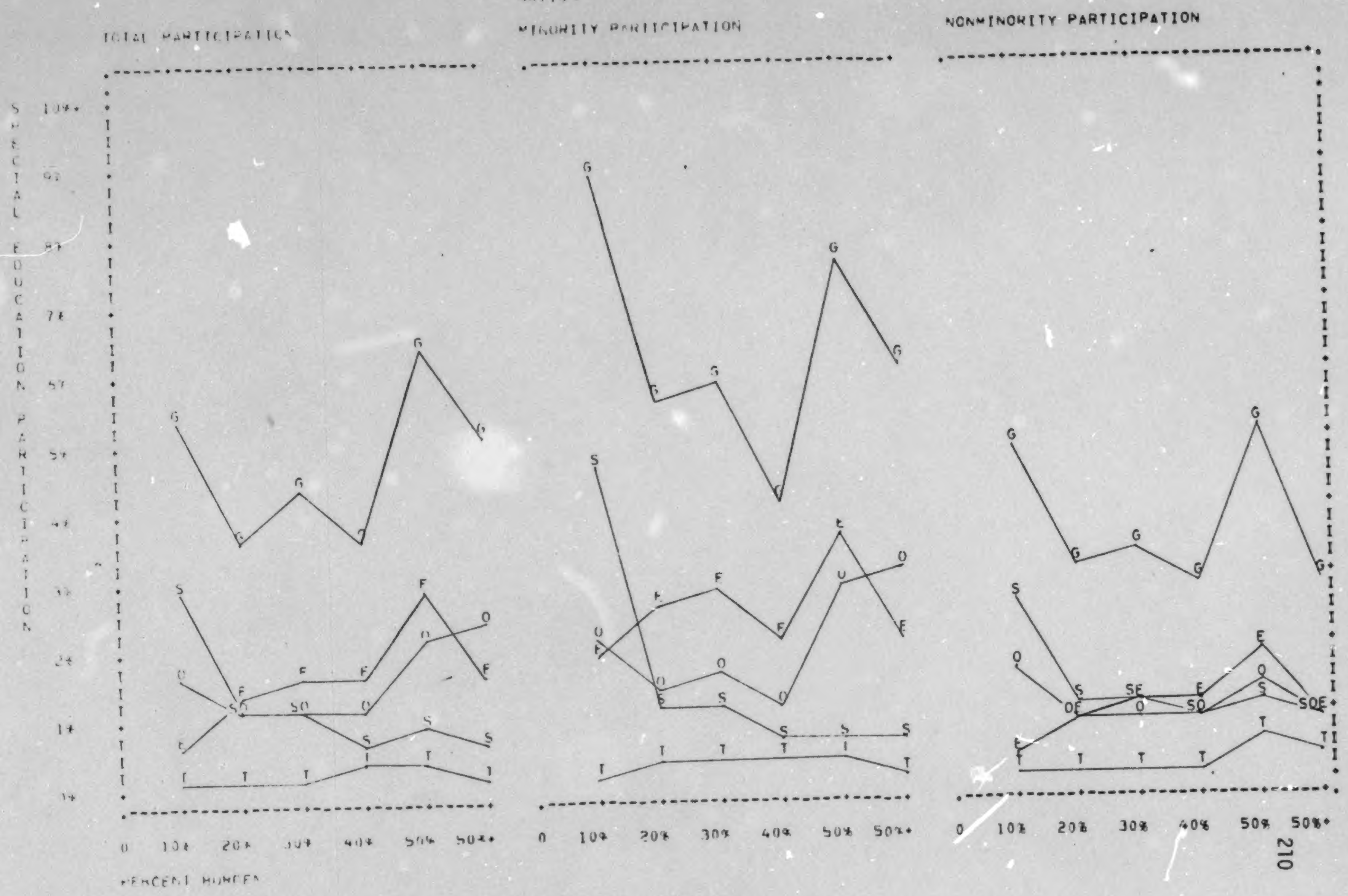
| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM DIST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | |
| NATION | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.7 | 0.1 | 1.7 | 2.0 | 5.4 | 1.8 | 0.2 | 2.2 | 4.6 | 8.8 | 0.5 | 0.1 | 1.6 | 2.6 | 4.9 | 15 |
| 11-20% BURDEN | 1.4 | 0.2 | 1.0 | 1.1 | 3.7 | 2.6 | 0.3 | 1.5 | 1.1 | 5.5 | 0.9 | 0.2 | 0.9 | 1.0 | 3.0 | 492 |
| 21-30% BURDEN | 1.7 | 0.2 | 1.2 | 1.2 | 4.3 | 2.8 | 0.3 | 1.6 | 1.2 | 5.9 | 1.1 | 0.2 | 0.9 | 1.2 | 3.3 | 756 |
| 31-40% BURDEN | 1.6 | 0.3 | 1.1 | 0.7 | 3.7 | 2.1 | 0.3 | 1.2 | 0.6 | 4.1 | 1.0 | 0.2 | 1.0 | 0.8 | 3.0 | 213 |
| 41-50% BURDEN | 2.8 | 0.5 | 2.1 | 0.9 | 6.3 | 3.7 | 0.4 | 2.8 | 0.6 | 7.5 | 1.9 | 0.5 | 1.4 | 1.2 | 5.1 | 43 |
| OVER 50% BURDEN | 1.7 | 0.2 | 2.5 | 0.6 | 5.0 | 2.2 | 0.1 | 3.2 | 0.5 | 6.0 | 0.8 | 0.3 | 0.9 | 0.8 | 2.8 | 23 |
| F-RATIO | 6.75 | 5.21 | [illegible] | 3.21 | 6.85 | 3.46 | 3.22 | 2.64 | 4.90 | 4.19 | 2.92 | 3.43 | 6.52 | 3.30 | 3.24 | |
| SIGNIFICANCE % | 99.99 | 99.98 | 99.99 | 99.29 | 99.99 | 99.56 | 99.30 | 97.85 | 99.96 | 99.89 | 98.74 | 99.53 | 99.99 | 99.40 | 99.32 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 |
| 11-20% BURDEN | 1.1 | 0.2 | 0.8 | 0.8 | 3.0 | 2.2 | 0.2 | 2.0 | 1.1 | 5.5 | 0.9 | 0.2 | 0.6 | 0.8 | 2.4 | 21 |
| 21-30% BURDEN | 1.2 | 0.3 | 1.5 | 1.2 | 4.2 | 1.9 | 0.3 | 3.0 | 1.1 | 6.3 | 0.8 | 0.3 | 0.7 | 1.2 | 3.0 | 68 |
| 31-40% BURDEN | 1.4 | 0.3 | 0.9 | 0.6 | 3.2 | 1.6 | 0.3 | 1.1 | 0.6 | 3.7 | 0.9 | 0.3 | 0.6 | 0.7 | 2.5 | 41 |
| 41-50% BURDEN | 1.7 | 0.4 | 1.5 | 0.7 | 4.2 | 2.6 | 0.4 | 2.3 | 0.5 | 5.8 | 1.0 | 0.3 | 0.9 | 0.6 | 3.1 | 8 |
| OVER 50% BURDEN | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 2.89 | 1.32 | 0.51 | 0.47 | 0.71 | 1.51 | 1.19 | 0.44 | 0.45 | 0.63 | 1.58 | 0.81 | 0.75 | 0.43 | 0.62 | |
| SIGNIFICANCE % | 97.56 | 73.68 | 27.09 | 23.54 | 40.87 | 79.84 | 68.23 | 21.50 | 22.51 | 35.27 | 81.84 | 47.75 | 43.91 | 21.06 | 34.61 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| 11-20% BURDEN | 1.6 | 0.2 | 0.7 | 0.6 | 3.0 | 3.0 | 0.3 | 1.1 | 0.5 | 4.8 | 1.2 | 0.2 | 0.5 | 0.6 | 2.6 | 38 |
| 21-30% BURDEN | 2.0 | 0.2 | 0.8 | 1.3 | 4.3 | 3.0 | 0.2 | 0.8 | 1.4 | 5.5 | 1.4 | 0.2 | 0.7 | 1.3 | 3.6 | 121 |
| 31-40% BURDEN | 2.0 | 0.2 | 0.6 | 0.7 | 3.4 | 2.5 | 0.1 | 0.6 | 0.5 | 3.7 | 1.4 | 0.2 | 0.5 | 0.9 | 3.1 | 31 |
| 41-50% BURDEN | 12.1 | 2.1 | 5.9 | 4.5 | 24.6 | 17.5 | 1.0 | 6.0 | 2.3 | 26.7 | 9.6 | 2.6 | 5.8 | 5.6 | 23.6 | 10 |
| OVER 50% BURDEN | 0.6 | 0.0 | 0.8 | 0.2 | 1.6 | 0.7 | 0.0 | 0.9 | 0.2 | 1.9 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 2 |
| F-RATIO | 6.23 | 5.51 | 4.82 | 1.59 | 7.47 | 8.64 | 2.41 | 2.17 | 1.77 | 8.55 | 4.18 | 5.96 | 4.61 | 1.37 | 5.53 | |
| SIGNIFICANCE % | 99.98 | 99.95 | 99.87 | 82.21 | 99.99 | 99.99 | 95.04 | 92.77 | 86.48 | 99.99 | 99.68 | 99.97 | 99.83 | 75.62 | 99.95 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.7 | 0.1 | 1.7 | 3.0 | 5.5 | 1.9 | 0.2 | 2.1 | 4.7 | 8.9 | 0.5 | 0.1 | 1.6 | 2.7 | 4.9 | 13 |
| 11-20% BURDEN | 1.5 | 0.2 | 1.1 | 1.1 | 4.0 | 3.1 | 0.4 | 1.8 | 1.2 | 6.4 | 0.9 | 0.2 | 0.9 | 1.1 | 3.1 | 340 |
| 21-30% BURDEN | 2.1 | 0.3 | 1.5 | 1.2 | 5.1 | 3.3 | 0.3 | 2.1 | 1.3 | 7.1 | 1.1 | 0.2 | 1.0 | 1.2 | 3.5 | 347 |
| 31-40% BURDEN | 2.7 | 0.2 | 2.4 | 0.6 | 5.9 | 3.9 | 0.3 | 2.1 | 0.6 | 6.9 | 1.1 | 0.1 | 2.8 | 0.6 | 4.6 | 94 |
| 41-50% BURDEN | 2.9 | 0.4 | 2.1 | 0.6 | 6.0 | 3.5 | 0.5 | 2.6 | 0.6 | 7.2 | 1.0 | 0.2 | 0.5 | 0.4 | 2.1 | 20 |
| OVER 50% BURDEN | 2.5 | 0.1 | 3.5 | 0.6 | 6.7 | 2.9 | 0.1 | 4.0 | 0.5 | 7.5 | 1.0 | 0.1 | 1.3 | 0.8 | 3.1 | 14 |
| F-RATIO | 7.60 | 1.88 | 3.62 | 3.94 | 3.79 | 1.32 | 1.77 | 0.92 | 5.21 | 0.73 | 0.66 | 1.52 | 4.57 | 4.81 | 2.42 | |
| SIGNIFICANCE % | 99.99 | 90.53 | 99.66 | 99.81 | 99.75 | 74.95 | 88.34 | 53.35 | 99.98 | 39.79 | 33.97 | 81.89 | 99.94 | 99.96 | 96.61 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-10% BURDEN | 0.5 | 0.0 | 1.8 | 0.0 | 2.3 | 0.3 | 0.0 | 3.8 | 0.0 | 4.2 | 0.5 | 0.0 | 1.0 | 0.0 | 1.5 | 1 |
| 11-20% BURDEN | 0.9 | 0.2 | 0.9 | 1.1 | 3.0 | 1.3 | 0.3 | 0.7 | 1.0 | 3.3 | 0.7 | 0.2 | 1.0 | 1.1 | 2.9 | 93 |
| 21-30% BURDEN | 1.1 | 0.2 | 1.0 | 1.0 | 3.2 | 1.6 | 0.2 | 1.0 | 0.9 | 3.7 | 0.8 | 0.2 | 0.9 | 1.1 | 3.0 | 220 |
| 31-40% BURDEN | 1.2 | 0.2 | 1.0 | 1.1 | 3.5 | 1.5 | 0.2 | 1.1 | 1.0 | 3.8 | 0.9 | 0.2 | 1.0 | 1.1 | 3.2 | 47 |
| 41-50% BURDEN | 1.6 | 0.0 | 5.0 | 0.5 | 7.2 | 1.9 | 0.0 | 6.3 | 0.5 | 8.8 | 1.1 | 0.0 | 3.0 | 0.6 | 4.6 | 5 |
| OVER 50% BURDEN | 0.8 | 0.4 | 1.2 | 0.7 | 3.1 | 0.9 | 0.2 | 1.7 | 0.6 | 3.5 | 0.7 | 0.5 | 0.8 | 0.8 | 2.7 | 7 |
| F-RATIO | 1.90 | 1.75 | 10.27 | 1.04 | 3.51 | 1.03 | 1.64 | 7.08 | 1.06 | 1.85 | 1.67 | 1.30 | 6.90 | 1.00 | 1.30 | |
| SIGNIFICANCE % | 90.75 | 87.78 | 99.99 | 60.78 | 99.55 | 60.04 | 85.12 | 99.99 | 61.56 | 89.82 | 85.97 | 73.94 | 99.99 | 58.43 | 73.63 | |

JUN 27, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT BURDEN

HEW/OASPE

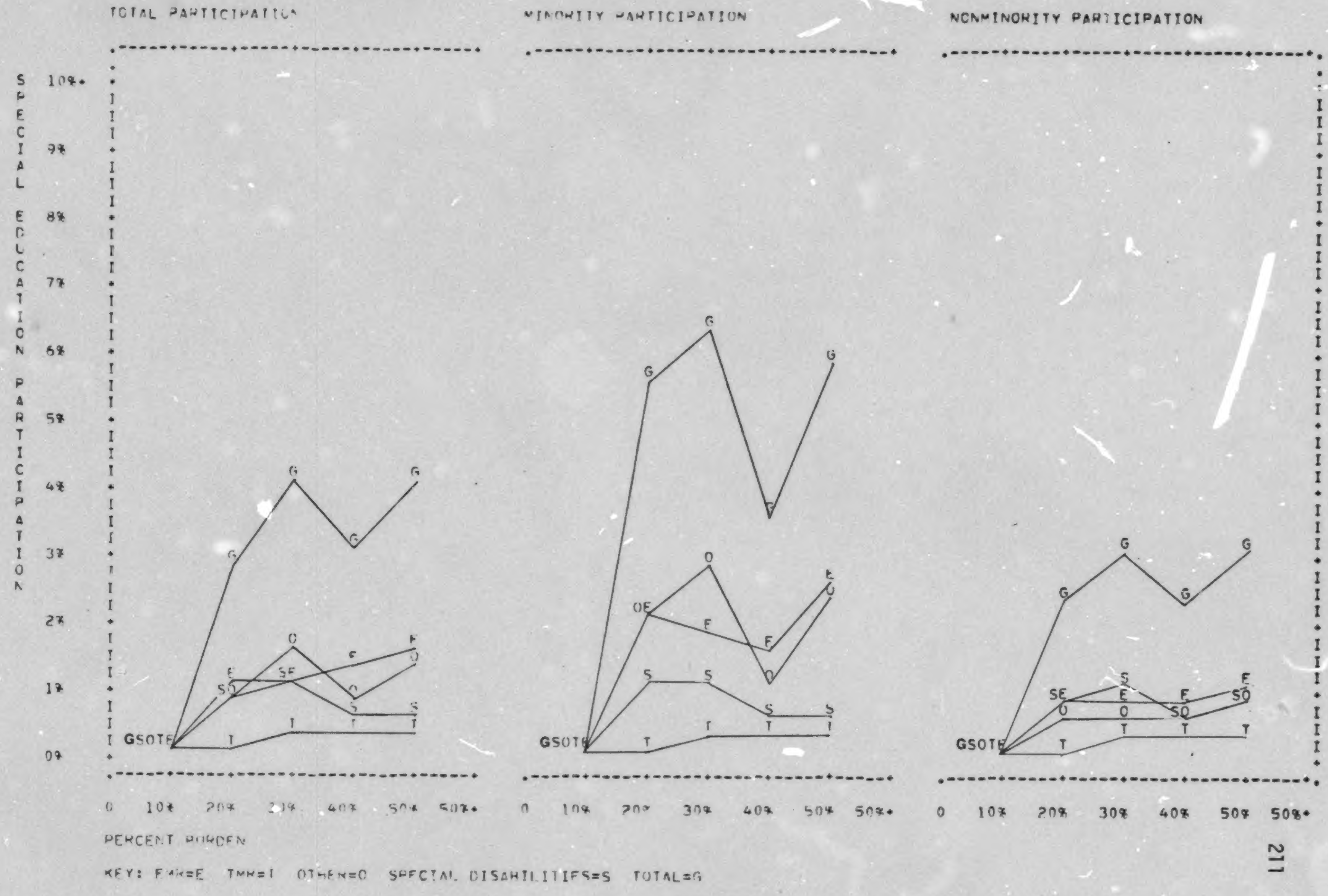
NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

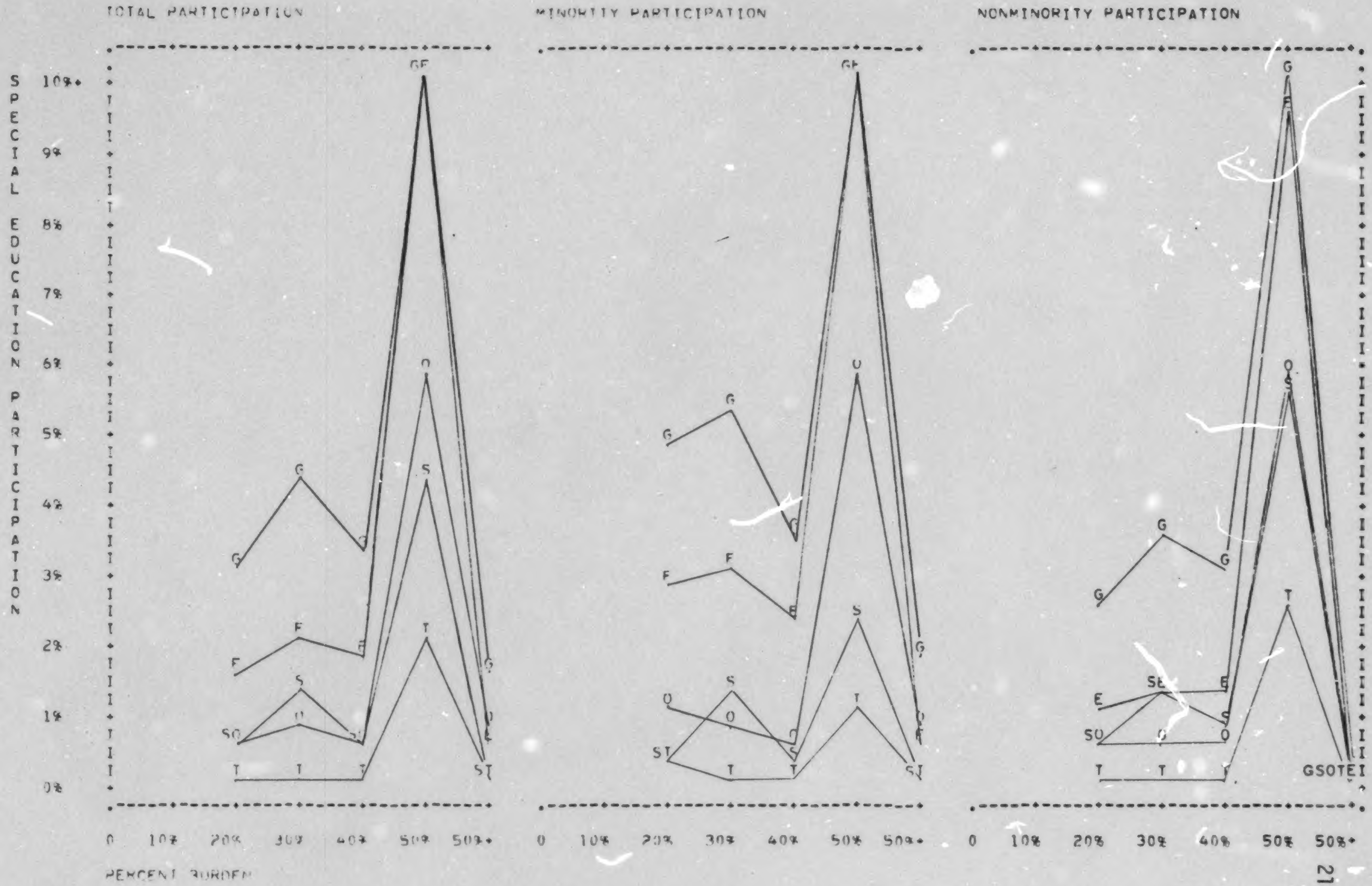
## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT BURDEN

NORTHEAST



PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT BURDEN

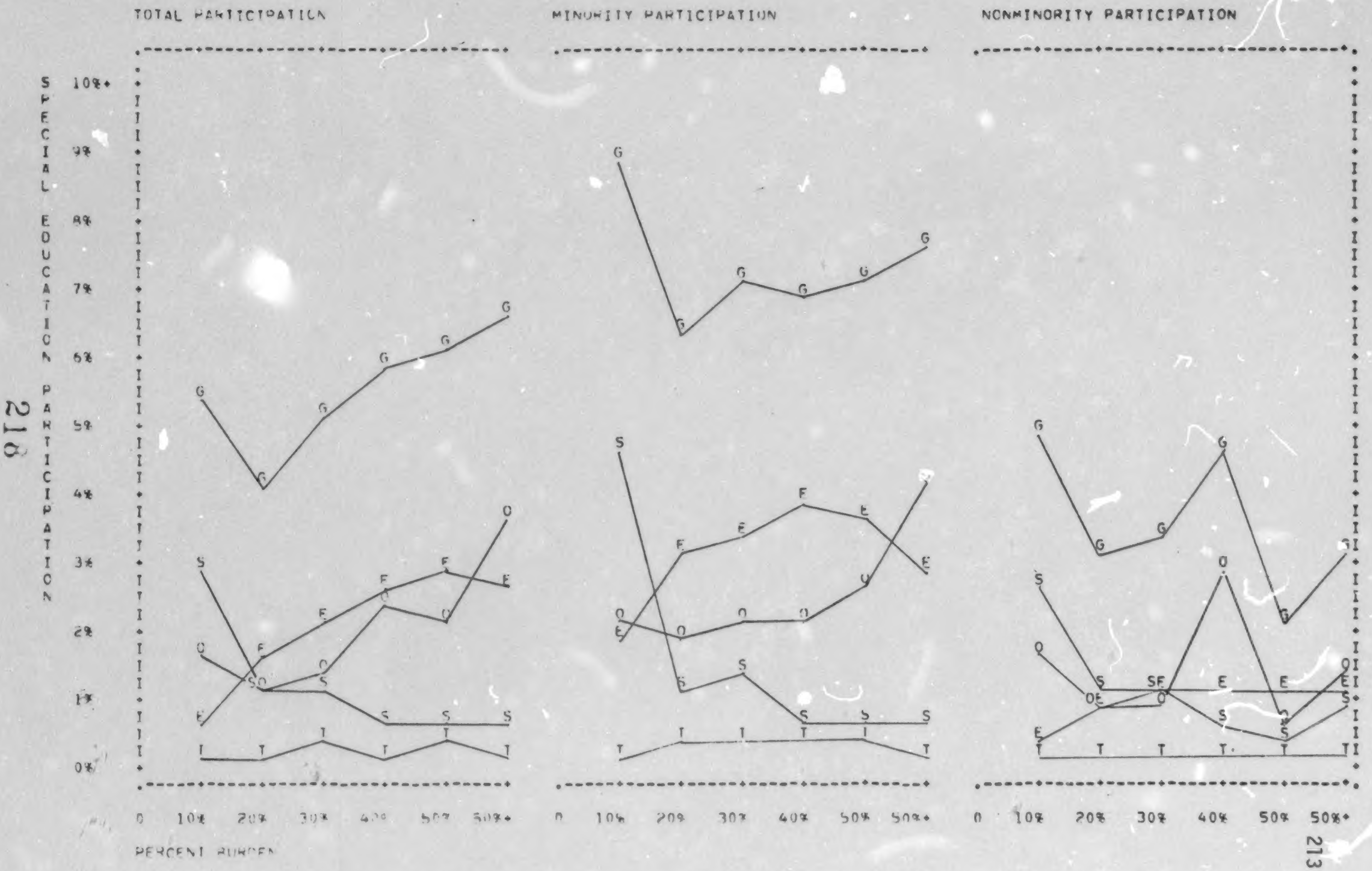
MIDWEST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT BURDEN HEW/OASPE

SOUTH



PERCENT BURDEN

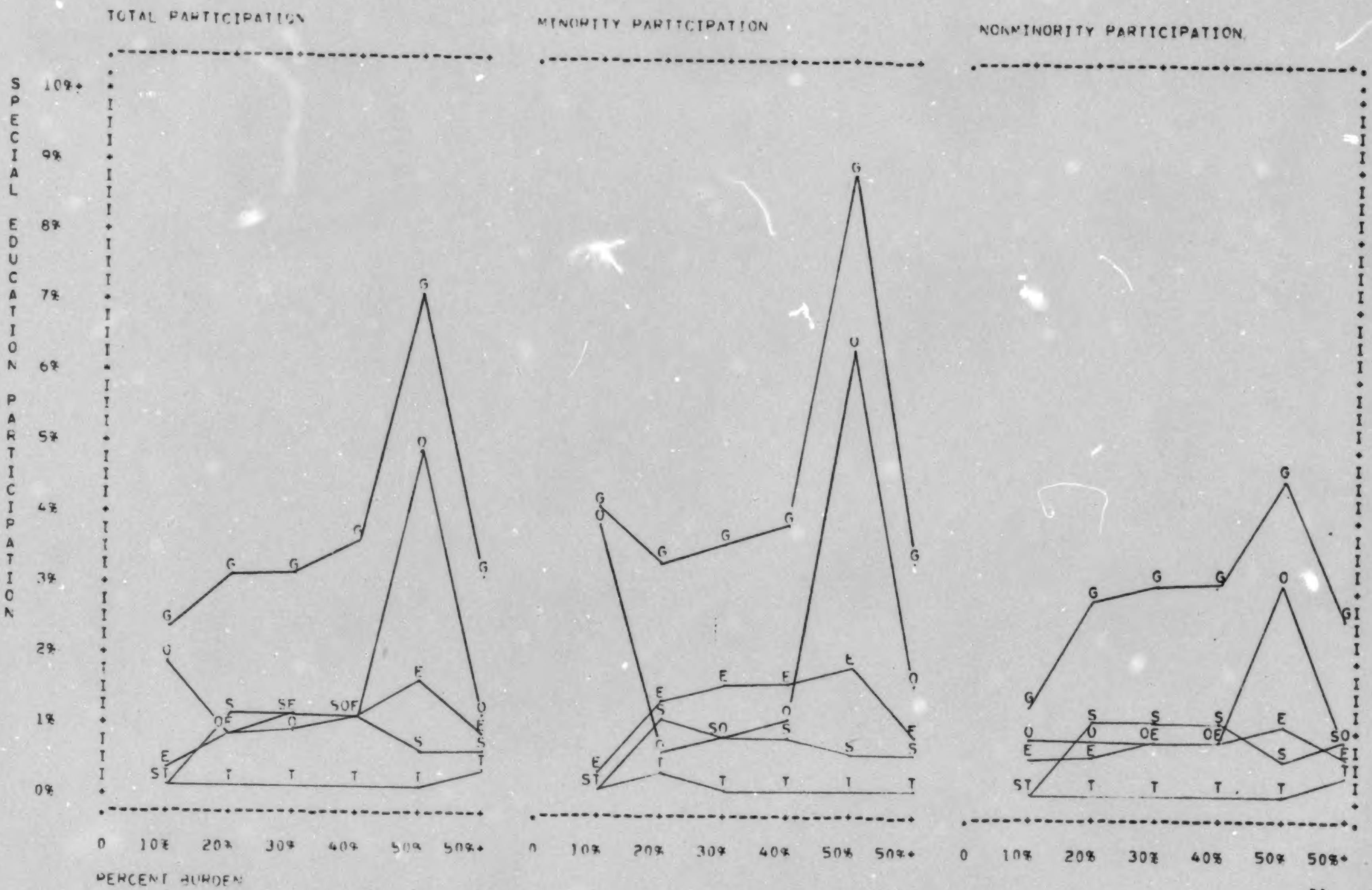
KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT BURDEN

WEST

HEW/OASPE



PERCENT BURDEN

KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

# Percent Special Education
# Participation by Percent Poverty - $3,000+:
# Summary Information

## Parameter:

Percent Poverty - $3,000+ is defined to be the percentage of people living below the poverty level in districts with per capita incomes greater than $3,000. Percent Poverty - $3,000+ assists in analyzing the effect of districts' economic status upon special education participation.

## General Observations:

National Trends: First of all, no districts in the file have per capita incomes greater than $3,000, with over 15% of the population living in poverty. Consequently, observation of trends is limited.

However, all enrollments' participation in Special Disabilities decreases as percent poverty increases in districts with per capita incomes greater than $3,000.

Northeast Regional Trends: The decline in Special Disabilities participation as percent poverty for districts with high per capita incomes increases also holds in the Northeast. However, no other trends emerge.

Midwest Regional Trends: A few clear trends, supported by high F Ratios, are found in the Midwest. Total enrollment participation in special education, especially EMR, rises as percent poverty increases in districts with high per capita income. These trends hold for both minority and non-minority enrollments; however, the trends are more pronounced for non-minority pupils.

South Regional Trends: In the South, participation of non-minority and total enrollments in EMR increases as percent poverty increases for districts with high per capita income.

West Regional Trends: In the West, two counter trends are at work in the participation of all enrollments in special education as percent poverty varies in districts with high per capita income. For minority, non-minority and total enrollments, participation in EMR rises and in Special Disabilities programs falls as the parameter increases.

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AUG 04, 1975                 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000+                         HEW/OASPE

GEOGRAPHIC AREA              ---TOTAL % PARTICIPATION----    --MINORITY % PARTICIPATION--    NONMINORITY % PARTICIPATION    NUM
   ANALYSIS CATEGORY          EMR   TMR  OTHER DISAB TOTAL    EMR   TMR  OTHER DISAB TOTAL    EMR   TMR  OTHER DISAB TOTAL DIST
-------------------------    ----  ----  ----  ----  ----    ----  ----  ----  ----  ----    ----  ----  ----  ----  ----  ----

NATION
   00-05% POVERTY             0.8   0.2   0.9   1.5   3.5     1.8   0.3   1.5   2.1   5.7     0.7   0.2   0.8   1.4   3.1   222
   06-10% POVERTY             1.6   0.3   0.8   1.2   3.8     2.4   0.3   1.0   1.1   4.9     1.0   0.2   0.7   1.2   3.1   165
   11-15% POVERTY             1.4   0.2   1.2   0.8   3.6     1.7   0.3   1.5   0.7   4.1     0.9   0.2   0.9   0.9   2.9    32
   16-25% POVERTY             0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   OVER 25% POVERTY           0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   F-RATIO                  34.56  2.95  0.00  2.19  1.58   13.05  0.53  0.11  3.71  0.09   20.96  3.32  0.30  1.26  0.35
   SIGNIFICANCE %           99.99 94.88  1.14 88.89 79.46   99.99 40.58 11.24 97.55  9.69   99.99 96.42 25.22 71.61 28.75

NORTHEAST
   00-05% POVERTY             0.9   0.2   1.0   1.4   3.5     2.0   0.2   2.1   2.0   6.3     0.7   0.2   0.7   1.3   2.9    59
   06-10% POVERTY             1.9   0.4   1.5   0.7   4.5     2.4   0.4   2.3   0.7   5.7     1.3   0.4   0.6   0.8   3.1    28
   11-15% POVERTY             1.0   0.3   1.0   0.6   2.8     1.1   0.3   1.2   0.6   3.2     0.6   0.3   0.6   0.6   2.1     7
   16-25% POVERTY             0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   OVER 25% POVERTY           0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   F-RATIO                  14.41  5.86  0.35  2.44  0.28    1.17 10.24  0.23  2.59  0.48   11.18  4.77  0.36  2.33  0.14
   SIGNIFICANCE %           99.99 99.56 29.06 90.88 23.69   68.62 99.98 20.66 92.10 37.69   99.99 98.93 29.68 89.86 13.63

MIDWEST
   00-05% POVERTY             1.3   0.3   0.9   0.9   3.4     2.9   0.3   1.8   0.9   5.9     1.0   0.3   0.7   0.9   2.8    59
   06-10% POVERTY             2.1   0.2   0.7   1.4   4.4     2.9   0.2   0.7   1.4   5.2     1.4   0.3   0.6   1.4   3.7    46
   11-15% POVERTY             3.3   0.0   0.7   1.0   5.0     3.9   0.0   0.8   0.6   5.3     2.8   0.0   0.6   1.3   4.7     1
   16-25% POVERTY             0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   OVER 25% POVERTY           0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   F-RATIO                  13.58  0.72  0.03  0.10  2.25    2.21  0.30  0.17  0.22  0.09   14.18  0.96  0.02  0.61  3.14
   SIGNIFICANCE %           99.99 50.41  3.81 10.41 89.18   88.75 25.21 15.81 19.73  9.27   99.99 61.17  2.83 44.73 95.41

SOUTH
   00-05% POVERTY             0.8   0.3   0.7   1.9   3.7     1.8   0.4   1.0   3.8   7.0     0.6   0.3   0.7   1.6   3.2    29
   06-10% POVERTY             1.4   0.2   0.9   1.4   4.0     2.9   0.3   1.3   1.4   6.0     0.7   0.2   0.7   1.5   3.1    41
   11-15% POVERTY             1.7   0.2   1.6   1.0   4.5     2.5   0.3   2.1   0.8   5.6     0.9   0.2   1.2   1.2   3.5    18
   16-25% POVERTY             0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   OVER 25% POVERTY           0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   F-RATIO                  20.24  0.39  0.28  0.83  0.87    3.97  0.25  0.17  1.52  0.25    9.39  0.22  0.08  0.31  0.06
   SIGNIFICANCE %           99.99 31.45 23.94 55.85 57.28   97.80 21.94 15.97 77.65 21.59   99.96 19.78  8.20 26.27  7.11

WEST
   00-05% POVERTY             0.7   0.2   1.2   1.4   3.5     0.9   0.3   1.3   1.7   4.2     0.6   0.2   1.1   1.4   3.3    75
   06-10% POVERTY             1.0   0.2   0.7   0.8   2.8     1.5   0.3   0.6   0.8   3.2     0.8   0.2   0.7   0.8   2.5    70
   11-15% POVERTY             1.9   0.2   0.6   0.7   3.4     2.5   0.2   0.8   0.7   4.2     1.3   0.1   0.4   0.7   2.5     6
   16-25% POVERTY             0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   OVER 25% POVERTY           0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0.0   0.0   0.0   0.0   0.0     0
   F-RATIO                   5.77  0.68  1.15  2.36  0.32    4.56  0.19  0.36  3.19  0.50    4.98  1.13  1.19  2.24  0.51
   SIGNIFICANCE %           99.58 48.89 68.13 90.37 26.84   98.81 17.65 29.41 95.71 38.93   99.17 67.37 69.22 89.19 39.12
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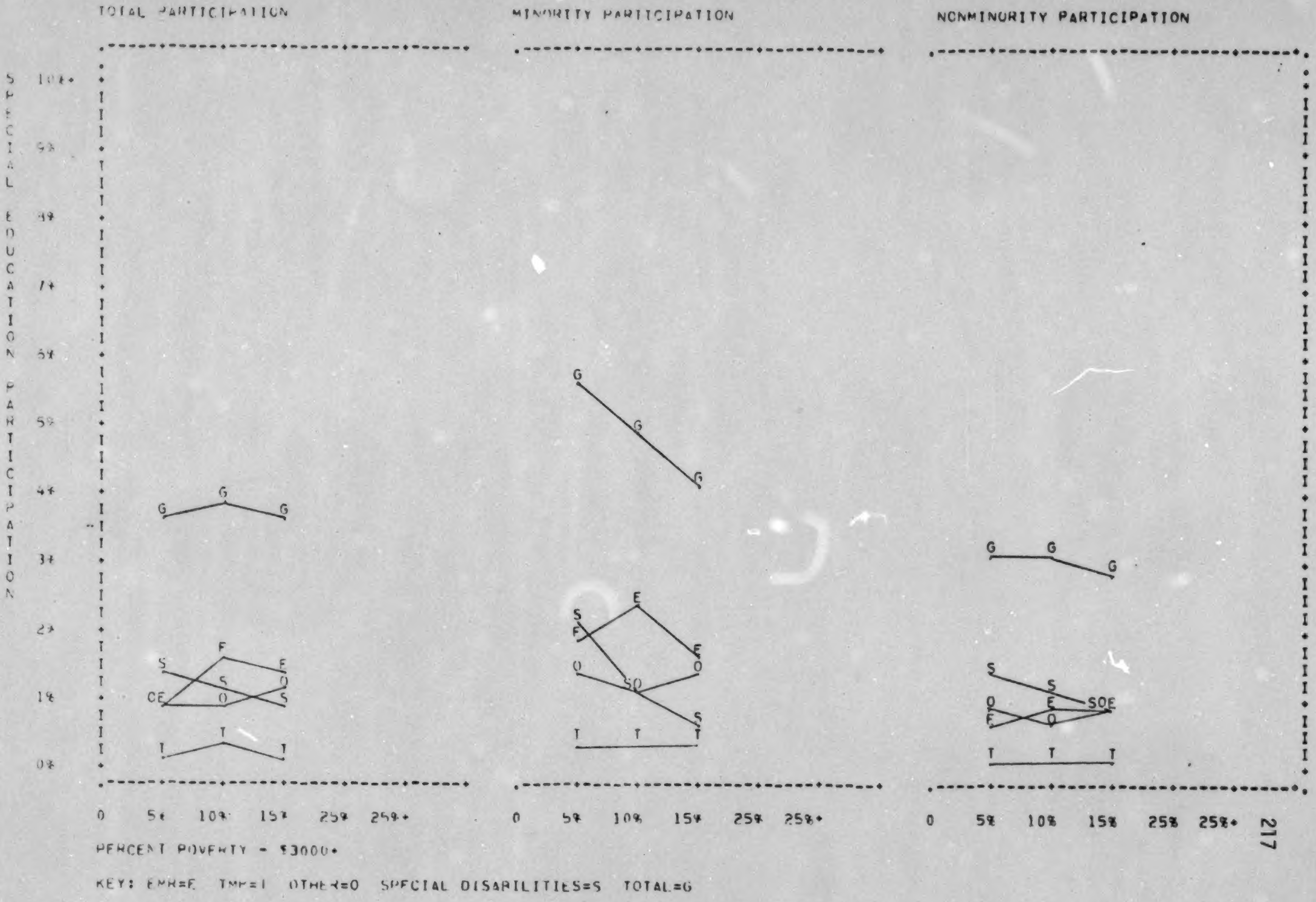
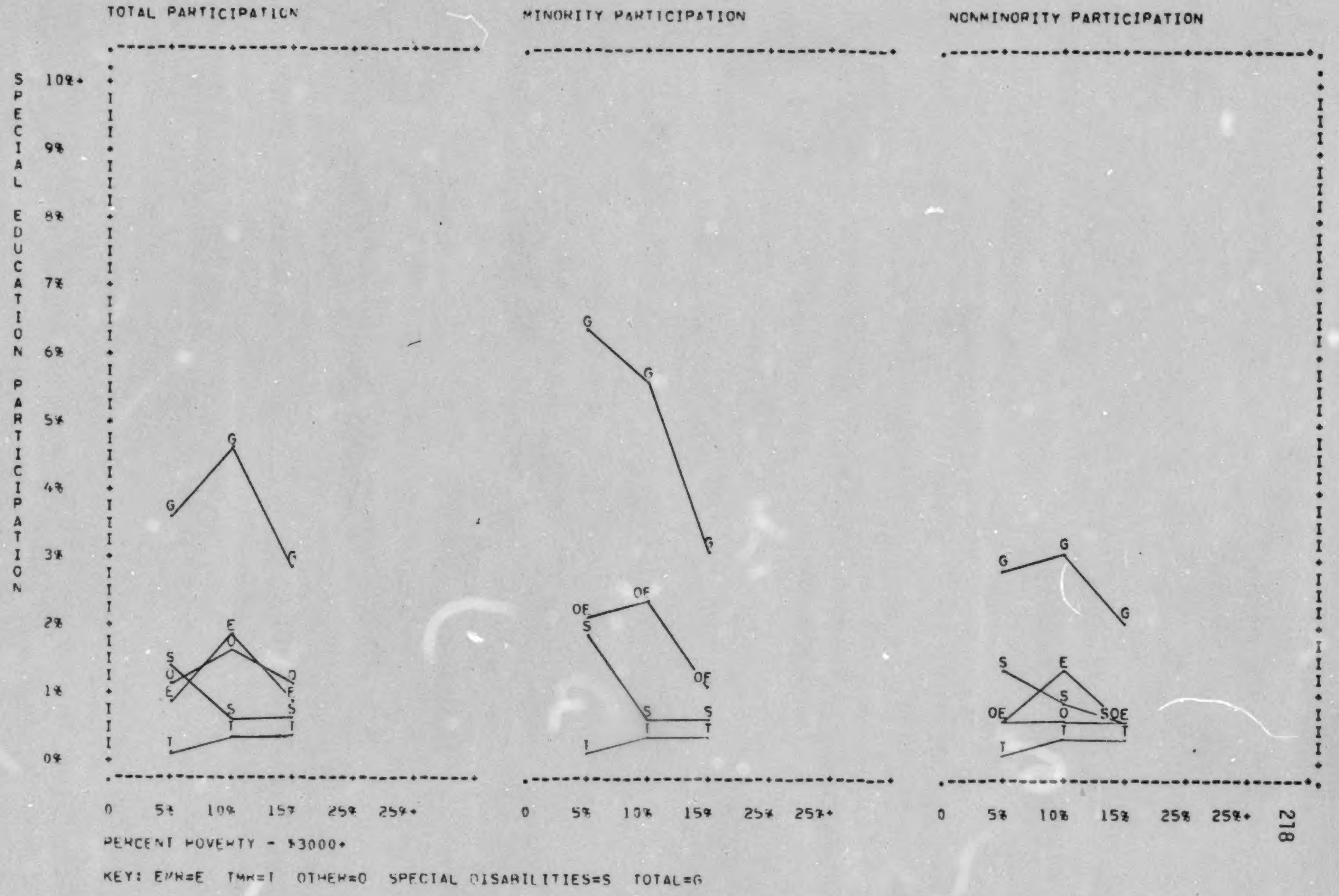
JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000+ HEW/OASPE

NATION



JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000+ HEW/OASPE

NORTHEAST

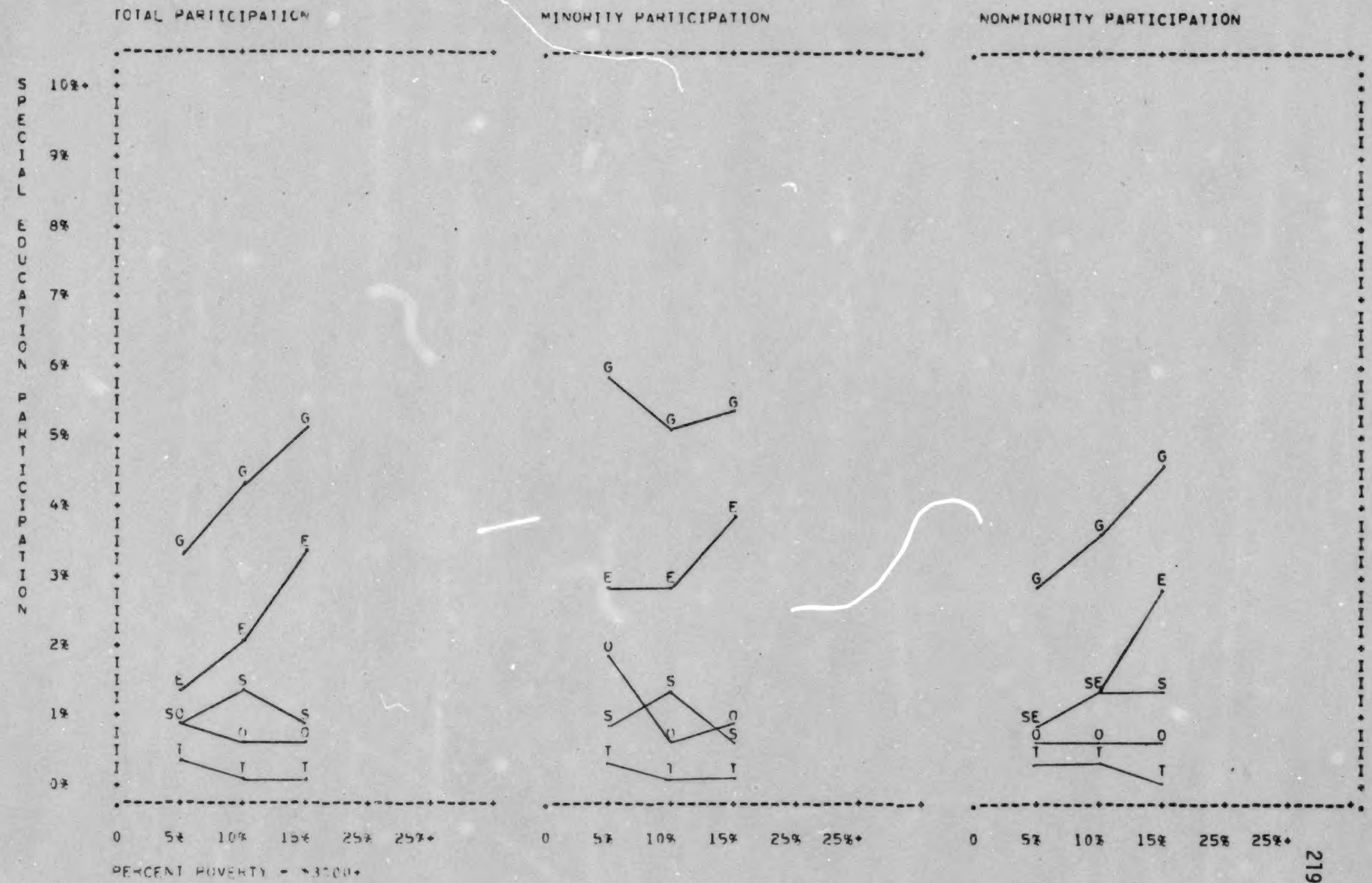


JUN 27, 1975

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000+

HEW/OASPE

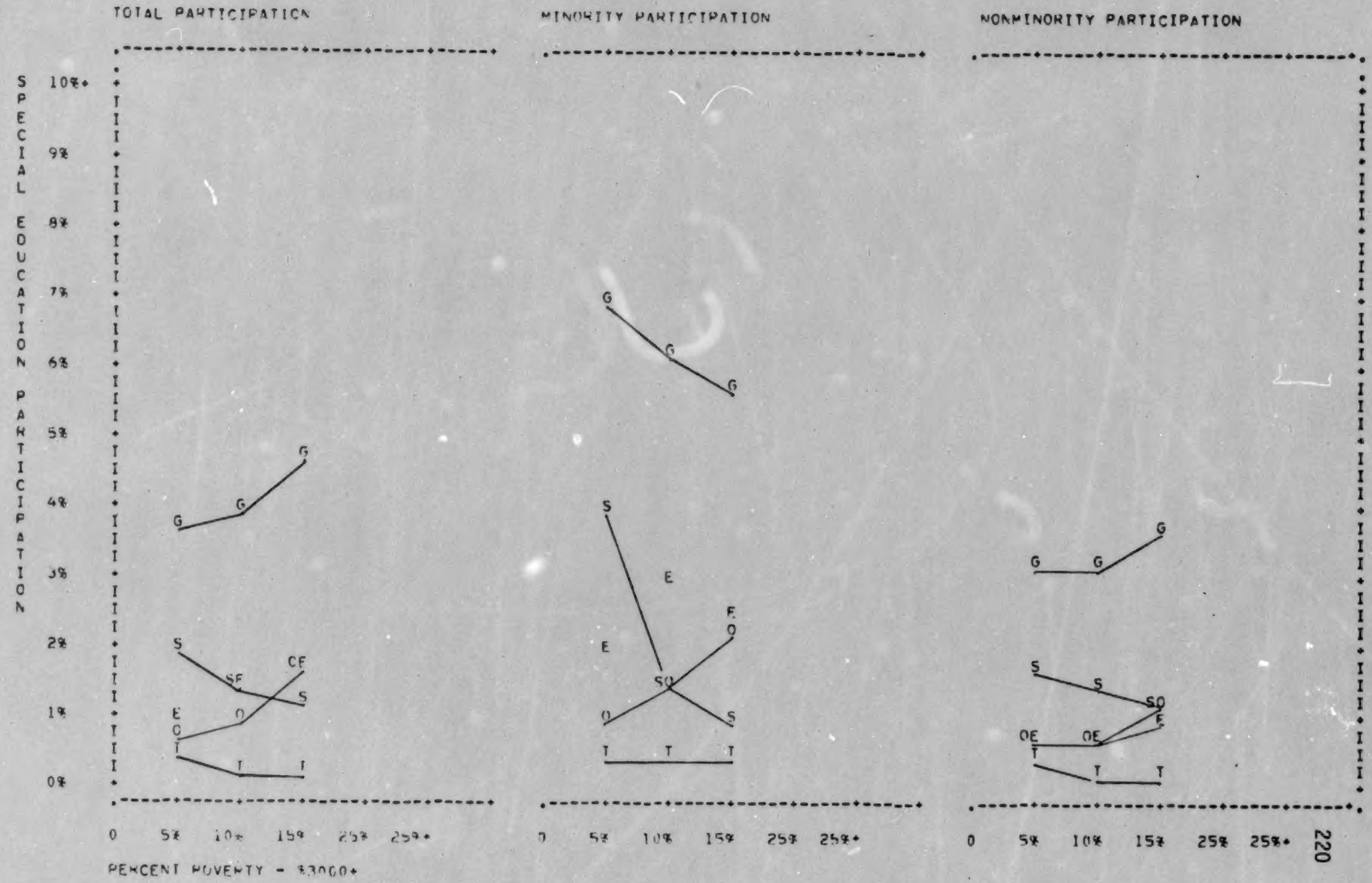
MIDWEST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000+ HEW/OASPE

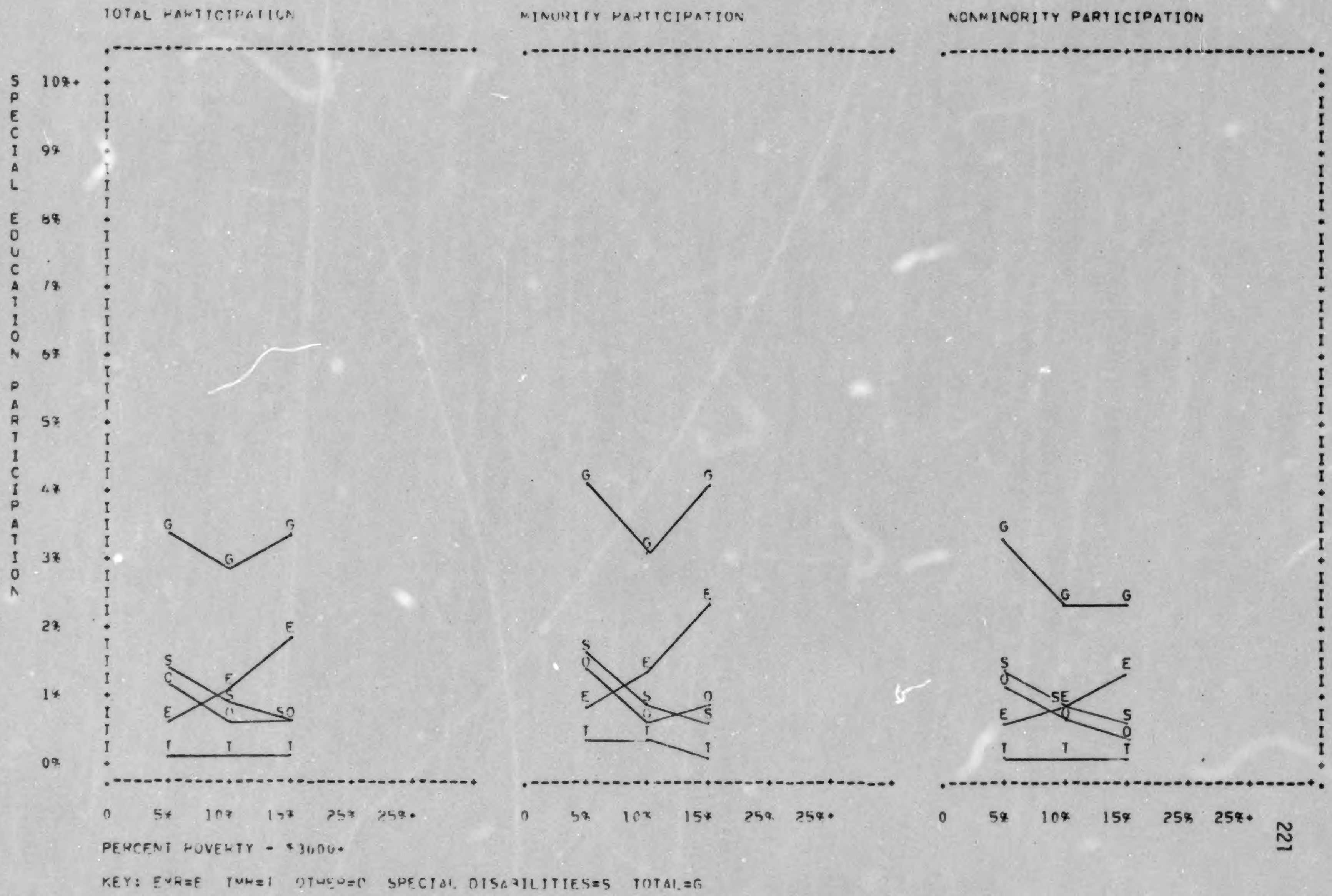
SOUTH



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000+ HEW/OASPE

WEST



## Percent Special Education
## By Percent Poverty - $3,000-:
## Summary Information

Parameter:

Percent Poverty - $3,000- is the percentage of people living in poverty in districts with per capita incomes less than $3,000. It serves as a measure of a districts financial composition.

General Observations:

National Trends: A clear increase in the nation's total participation in overall special education is accompanied by an increase in EMR involvement and a decrease in Special Disabilities participation (as percent poverty rises in districts with per capita incomes less than $3,000).

For minority pupils, increasing participation in EMR and Other programs leads to an increase in participation in overall special education as the parameter increases. Minority participation in Special Disabilities programs declines as the parameter increases. For non-minority pupils, involvement in Special Disabilities programs also declines but no other trends for non-minority participation are supported by the F test.

Northeast Regional Trends: Any apparent trends in special education participation as percent poverty increases in districts with per capita incomes less than $3,000 have at least a 10% chance of arising from random fluctuations, according to the F test. Uncertainty of this magnitude precludes drawing conclusions about the relation of participation to the parameter being analyzed.

Midwest Regional Trends: In the Midwest, no observed trends are found which are supported by the F test.

South Regional Trends: Several trends emerge in the South involving participation and percent poverty, $3,000-, particularly for minority pupils. For total enrollments, overall participation rises - due to increasing EMR and Other programs involvement - as poorer districts are considered. However, total participation in Special Disabilities programs declines with increasing poverty.

For minority pupils, most trends run counter to the trends observed for the total enrollment. Minority participation in EMR, Special Disabilities, and overall special education all decline as poorer districts are considered.

For non-minority pupils, involvement in Special Disabilities programs falls, and in Other programs rises as percent poverty increases in districts with per capita incomes below $3,000.

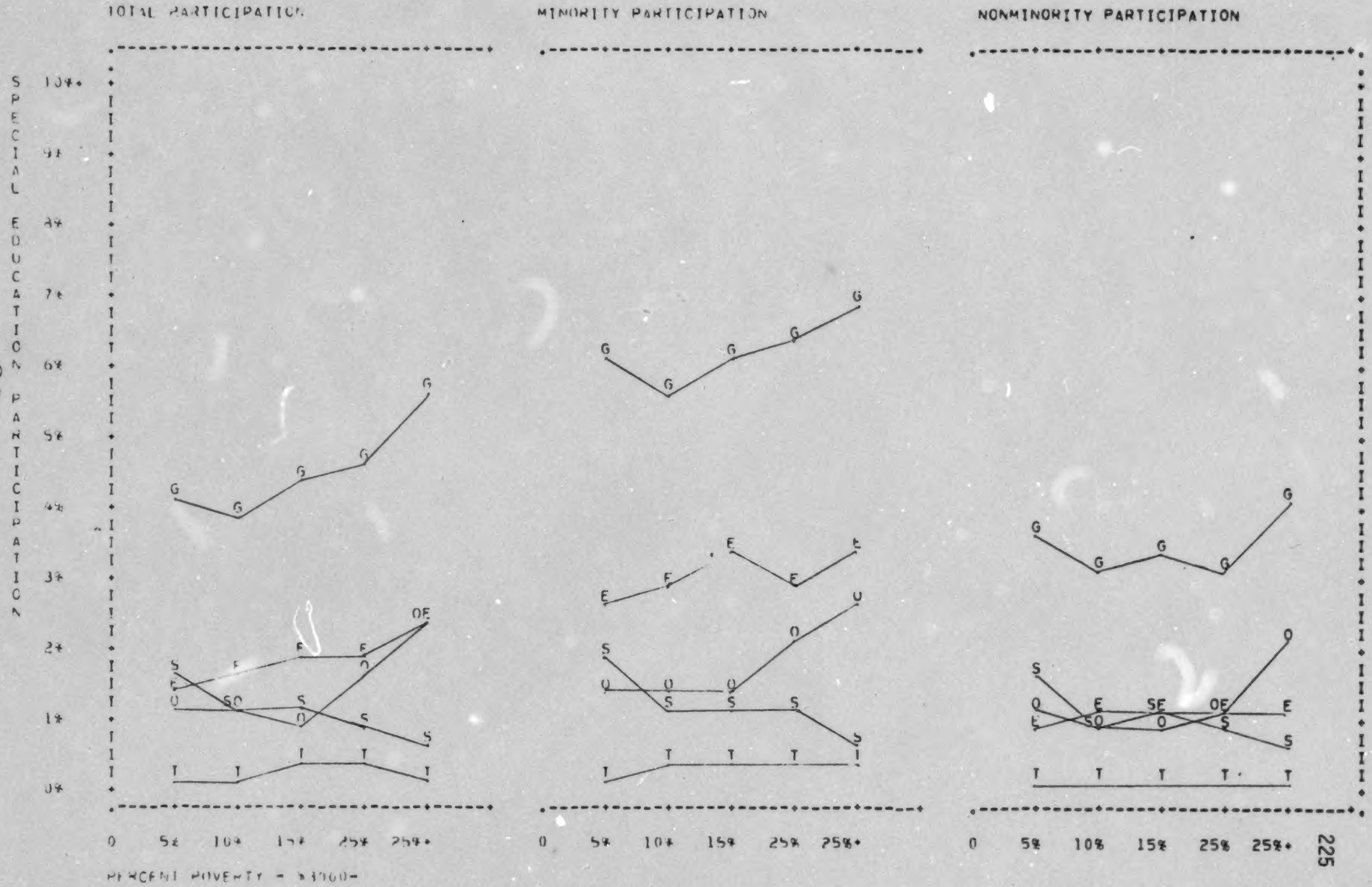
West Regional Trends: Total participation in Special Disabilities programs declines as districts with low per capita income become poorer. This behavior is exhibited by both minority and non-minority enrollments, although the non-minority trend is statistically more significant.

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000-

| GEOGRAPHIC AREA ANALYSIS CATEGORY | ---TOTAL % PARTICIPATION---- | | | | | --MINORITY % PARTICIPATION-- | | | | | NONMINORITY % PARTICIPATION | | | | | NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | EMR | TMR | OTHER | DISAB | TOTAL | DIST |
| NATION | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.3 | 0.1 | 1.1 | 1.7 | 4.2 | 2.6 | 0.1 | 1.4 | 1.9 | 6.1 | 1.0 | 0.1 | 1.0 | 1.6 | 3.7 | 37 |
| 06-10% POVERTY | 1.6 | 0.2 | 1.0 | 1.0 | 3.8 | 2.8 | 0.3 | 1.4 | 1.1 | 5.6 | 1.2 | 0.2 | 0.9 | 1.0 | 3.2 | 200 |
| 11-15% POVERTY | 1.9 | 0.3 | 1.0 | 1.1 | 4.3 | 3.5 | 0.3 | 1.3 | 1.1 | 6.2 | 1.1 | 0.2 | 0.8 | 1.1 | 3.3 | 267 |
| 16-25% POVERTY | 1.9 | 0.3 | 1.6 | 0.9 | 4.5 | 2.8 | 0.3 | 2.1 | 1.0 | 6.3 | 1.1 | 0.2 | 1.1 | 0.8 | 3.2 | 320 |
| OVER 25% POVERTY | 2.4 | 0.2 | 2.5 | 0.6 | 5.7 | 3.3 | 0.3 | 2.7 | 0.7 | 6.9 | 1.2 | 0.1 | 2.2 | 0.5 | 4.0 | 279 |
| F-RATIO | 5.29 | 2.62 | 5.09 | 8.04 | 3.66 | 1.96 | 2.83 | 2.90 | 6.10 | 2.60 | 1.44 | 3.92 | 2.31 | 10.98 | 0.64 | |
| SIGNIFICANCE % | 99.94 | 96.70 | 99.93 | 99.99 | 99.40 | 90.24 | 97.68 | 97.91 | 99.98 | 96.56 | 78.32 | 99.60 | 94.46 | 99.99 | 36.23 | |
| NORTHEAST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.3 | 0.2 | 0.7 | 0.5 | 2.7 | 3.2 | 0.2 | 1.1 | 0.7 | 5.2 | 0.8 | 0.2 | 0.6 | 0.5 | 2.1 | 10 |
| 06-10% POVERTY | 1.6 | 0.3 | 0.9 | 0.7 | 3.5 | 3.0 | 0.3 | 1.6 | 0.7 | 5.6 | 1.1 | 0.3 | 0.6 | 0.7 | 2.7 | 22 |
| 11-15% POVERTY | 1.8 | 0.2 | 0.6 | 0.9 | 3.5 | 2.2 | 0.3 | 0.6 | 0.5 | 3.6 | 1.3 | 0.2 | 0.6 | 1.3 | 3.4 | 10 |
| 16-25% POVERTY | 2.0 | 0.3 | 0.4 | 0.8 | 3.5 | 2.1 | 0.3 | 0.4 | 0.8 | 3.7 | 1.2 | 0.4 | 0.4 | 0.8 | 2.7 | 3 |
| OVER 25% POVERTY | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 |
| F-RATIO | 1.53 | 1.62 | 0.29 | 0.55 | 2.01 | 0.80 | 0.21 | 0.43 | 0.49 | 0.64 | 1.23 | 2.75 | 0.16 | 0.70 | 2.19 | |
| SIGNIFICANCE % | 78.08 | 80.09 | 16.57 | 34.61 | 87.41 | 49.81 | 11.35 | 26.18 | 30.26 | 40.56 | 68.83 | 94.62 | 7.84 | 44.01 | 89.69 | |
| MIDWEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.9 | 0.1 | 0.4 | 0.5 | 2.9 | 3.4 | 0.2 | 0.4 | 0.8 | 4.9 | 1.5 | 0.1 | 0.4 | 0.4 | 2.5 | 8 |
| 06-10% POVERTY | 2.0 | 0.1 | 0.7 | 0.8 | 3.6 | 3.6 | 0.1 | 1.1 | 0.9 | 5.7 | 1.6 | 0.1 | 0.6 | 0.8 | 3.1 | 40 |
| 11-15% POVERTY | 2.7 | 0.3 | 0.7 | 0.8 | 4.6 | 3.0 | 0.2 | 0.6 | 0.5 | 4.3 | 2.4 | 0.4 | 0.8 | 1.2 | 4.8 | 22 |
| 16-25% POVERTY | 1.3 | 0.3 | 1.8 | 1.0 | 4.5 | 1.5 | 0.4 | 0.7 | 0.4 | 2.9 | 1.0 | 0.3 | 4.0 | 2.5 | 7.8 | 11 |
| OVER 25% POVERTY | 3.4 | 0.0 | 3.0 | 0.5 | 6.9 | 5.1 | 0.0 | 3.2 | 0.6 | 9.0 | 1.6 | 0.1 | 2.9 | 0.3 | 4.9 | 15 |
| F-RATIO | 0.69 | 1.10 | 1.38 | 1.42 | 0.43 | 0.30 | 1.72 | 1.66 | 1.16 | 0.39 | 0.96 | 1.00 | 0.74 | 1.41 | 0.39 | |
| SIGNIFICANCE % | 39.33 | 63.65 | 75.37 | 76.80 | 21.29 | 12.23 | 84.81 | 83.61 | 66.55 | 18.49 | 56.61 | 58.46 | 43.24 | 76.44 | 18.46 | |
| SOUTH | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.7 | 0.2 | 1.3 | 1.8 | 4.9 | 4.8 | 0.3 | 2.5 | 2.6 | 10.3 | 1.0 | 0.1 | 1.0 | 1.6 | 3.8 | 5 |
| 06-10% POVERTY | 1.8 | 0.2 | 1.0 | 1.2 | 4.2 | 4.1 | 0.4 | 1.8 | 1.4 | 7.7 | 1.2 | 0.2 | 0.8 | 1.1 | 3.3 | 59 |
| 11-15% POVERTY | 2.1 | 0.3 | 1.1 | 1.2 | 4.6 | 4.2 | 0.4 | 1.5 | 1.3 | 7.4 | 1.1 | 0.2 | 0.8 | 1.1 | 3.3 | 177 |
| 16-25% POVERTY | 1.9 | 0.3 | 1.7 | 0.9 | 4.8 | 3.0 | 0.4 | 2.3 | 1.1 | 6.8 | 1.1 | 0.2 | 1.2 | 0.8 | 3.3 | 258 |
| OVER 25% POVERTY | 2.5 | 0.2 | 2.5 | 0.7 | 5.8 | 3.4 | 0.3 | 2.7 | 0.8 | 7.1 | 1.2 | 0.1 | 2.2 | 0.5 | 4.1 | 241 |
| F-RATIO | 1.54 | 1.98 | 2.04 | 6.76 | 0.73 | 3.94 | 3.11 | 0.86 | 6.53 | 1.73 | 1.96 | 6.85 | 1.05 | 8.88 | 0.34 | |
| SIGNIFICANCE % | 81.23 | 90.55 | 91.34 | 99.99 | 42.28 | 99.60 | 98.51 | 50.94 | 99.99 | 86.08 | 90.25 | 99.99 | 62.16 | 99.99 | 14.97 | |
| WEST | | | | | | | | | | | | | | | | |
| 00-05% POVERTY | 1.1 | 0.1 | 1.6 | 3.1 | 5.9 | 1.5 | 0.1 | 1.7 | 3.1 | 6.3 | 1.0 | 0.1 | 1.6 | 3.1 | 5.8 | 14 |
| 06-10% POVERTY | 1.1 | 0.2 | 1.3 | 1.1 | 3.7 | 1.6 | 0.2 | 1.1 | 1.1 | 4.1 | 0.9 | 0.2 | 1.3 | 1.1 | 3.5 | 79 |
| 11-15% POVERTY | 0.9 | 0.2 | 0.7 | 0.9 | 2.7 | 1.2 | 0.3 | 0.8 | 0.9 | 3.2 | 0.7 | 0.2 | 0.7 | 0.8 | 2.5 | 58 |
| 16-25% POVERTY | 1.4 | 0.2 | 0.9 | 0.5 | 3.0 | 1.9 | 0.3 | 1.2 | 0.5 | 3.8 | 0.9 | 0.1 | 0.7 | 0.5 | 2.3 | 48 |
| OVER 25% POVERTY | 1.3 | 0.2 | 1.7 | 0.3 | 3.6 | 1.4 | 0.2 | 1.9 | 0.3 | 3.9 | 0.9 | 0.2 | 0.7 | 0.4 | 2.2 | 23 |
| F-RATIO | 2.67 | 0.58 | 0.85 | 2.74 | 0.92 | 1.80 | 0.96 | 0.29 | 1.40 | 0.69 | 0.84 | 0.70 | 0.35 | 3.57 | 1.24 | |
| SIGNIFICANCE % | 96.76 | 32.21 | 50.36 | 97.06 | 54.63 | 87.22 | 57.00 | 11.88 | 76.67 | 39.82 | 49.45 | 40.55 | 15.54 | 99.21 | 70.75 | |

# PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000-

NATION

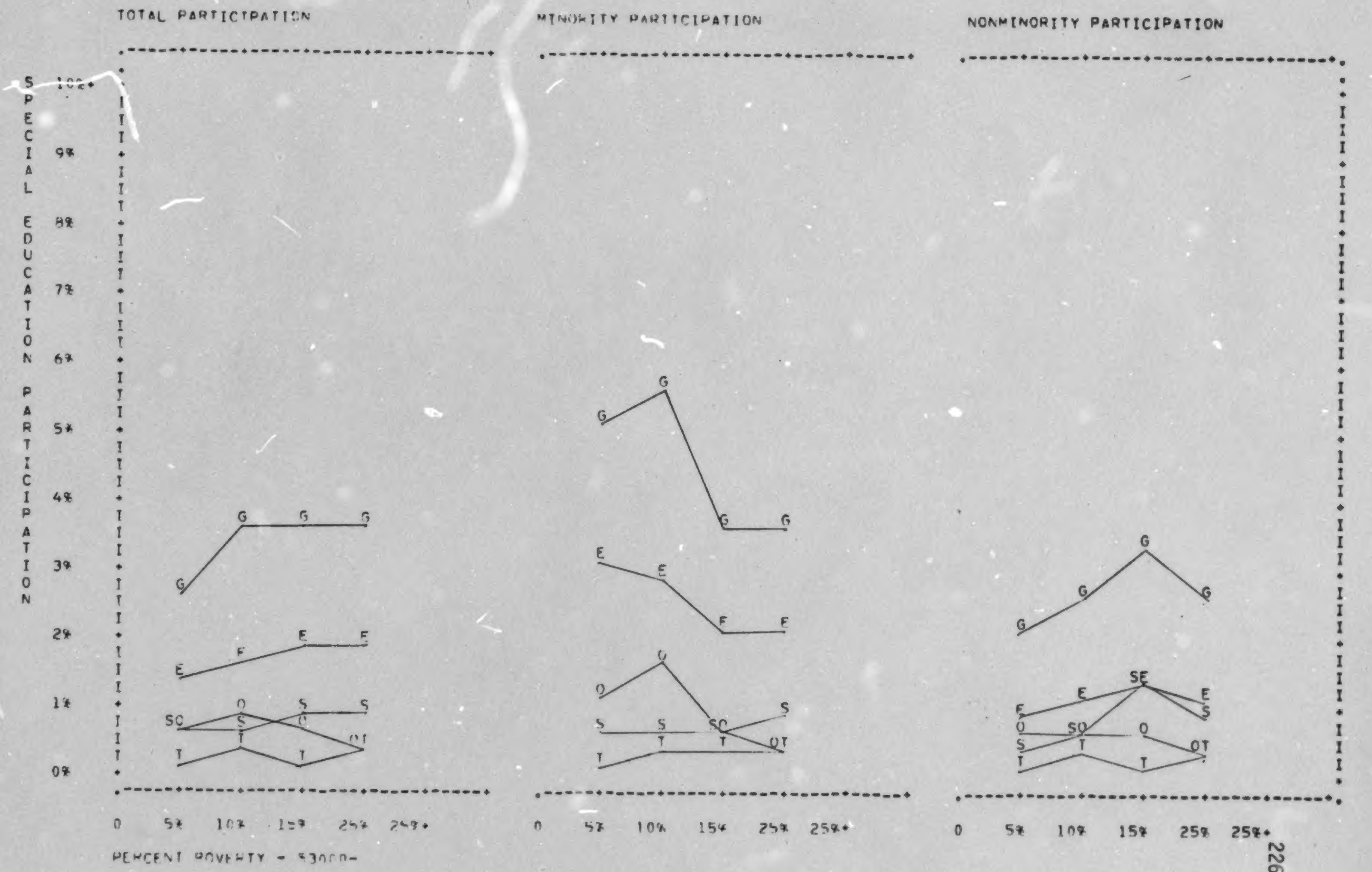


PERCENT POVERTY - $3000-

KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000- HEW/OASPE

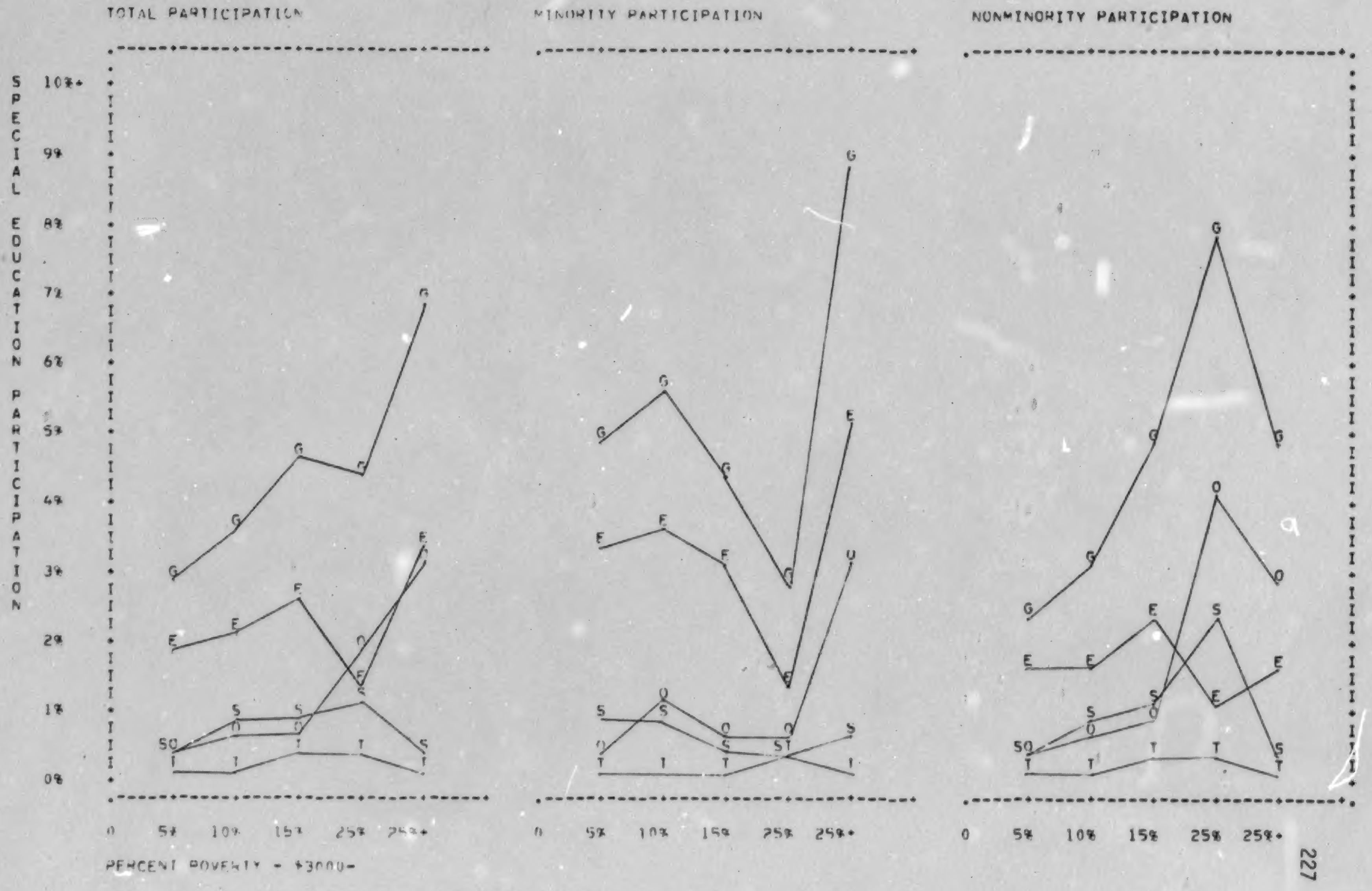
NORTHEAST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000- HEW/OASPE

MIDWEST



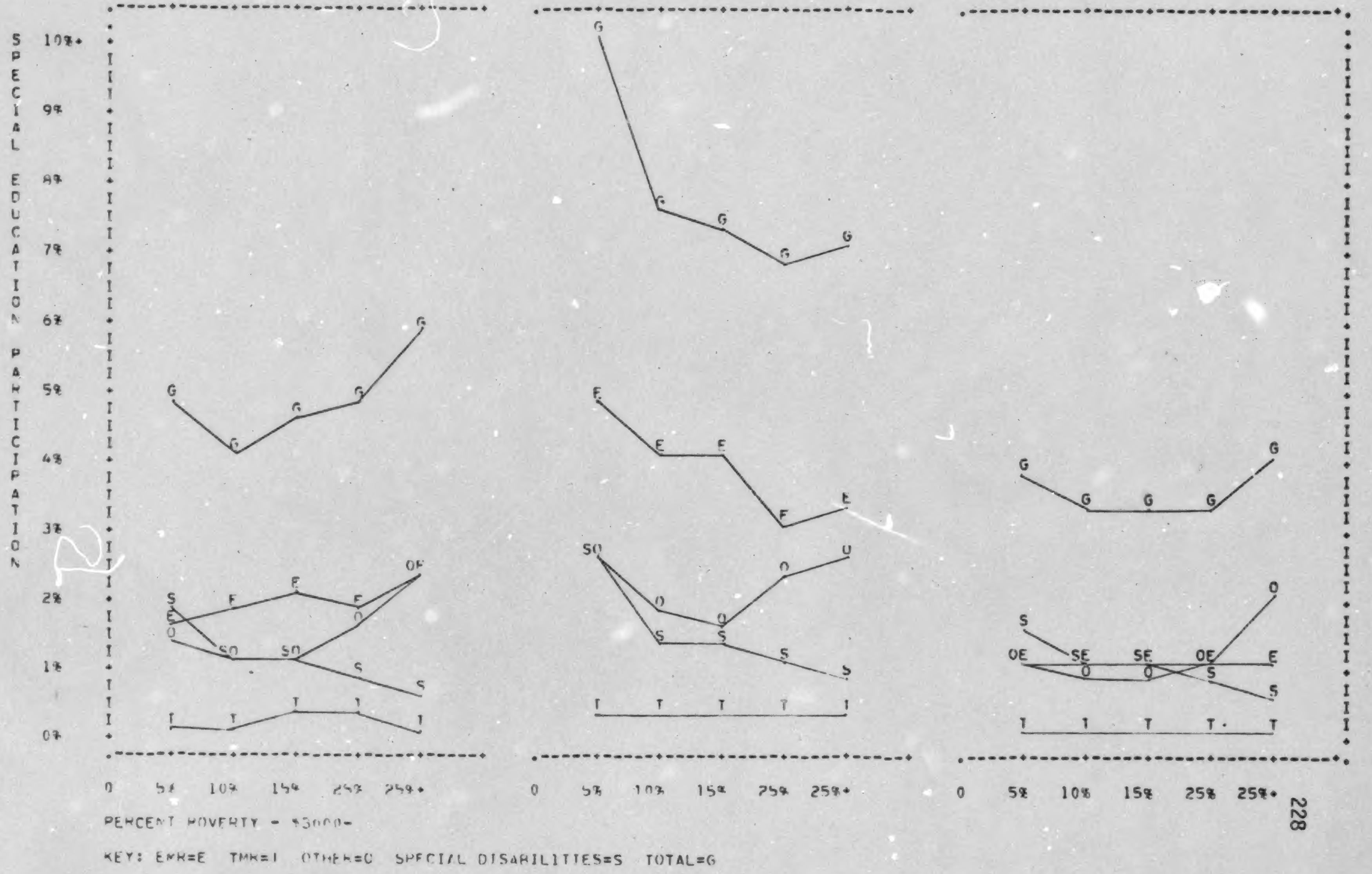
KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUN 27, 1975 HEW/OASPE

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000-

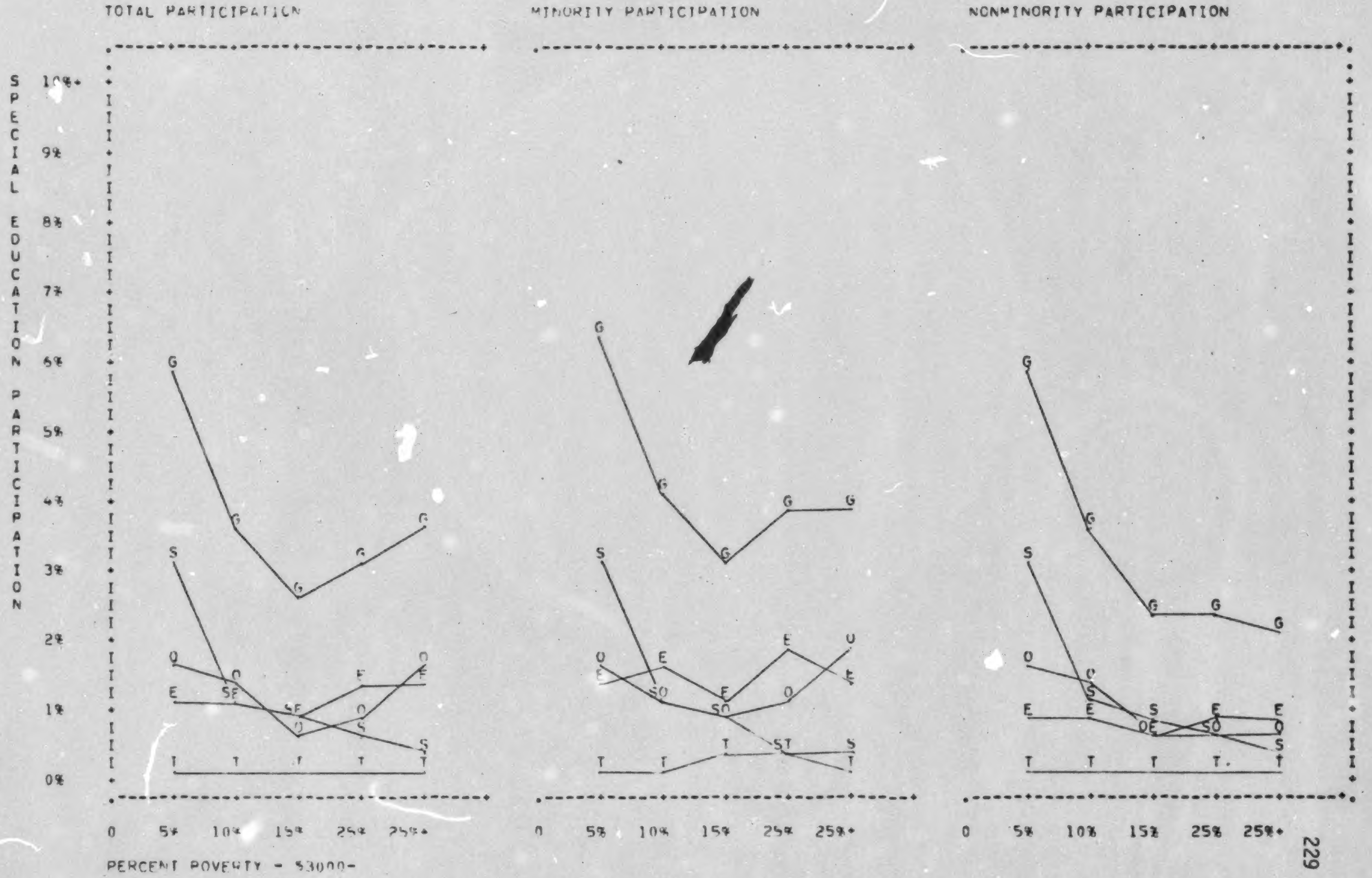
### SOUTH

TOTAL PARTICIPATION MINORITY PARTICIPATION NONMINORITY PARTICIPATION



JUN 27, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY - $3000- HEW/OASPE

WEST



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

# Percent Special Education
# Participation by Schooling Completed:
# Summary Information

## Parameter:

Schooling completed is the average number of years of schooling completed by adults in a district. In this report, districts are grouped into two principal categories: those whose adults, on the average, have and have not completed high school. Because there are only two categories, this report is descriptive in nature and no quantitative statistical measures of the significance of trends have been used.

## General Observations:

National Trends: Nationally, there are pronounced differences between special education participation rates in districts whose adults, on the average, have and have not completed high school. The total participation in all aspects of special education falls markedly: districts with less educated adults have children participating at a 5.11% rate while in more educated districts, children participate at just a 3.84% rate. This decrease stems from decreases in Other programs and especially in EMR programs. However, these decreases are partially offset by an increase in Special Disabilities participation. In summary, children in districts with better educated adults are less likely to participate in EMR and Other programs and more likely to be involved in Special Disabilities programs.

Trends for minority and non-minority enrollments are the same as the ones described for the total national enrollment.

Northeast Regional Trends: National trends also hold in the Northeast. Participation in Other programs drops drastically (from 2.26% to .97%) for the total enrollment in this region as districts with higher average adult education are considered.

Midwest Regional Trends: In the Midwest, differences in participation rates are very pronounced between districts whose adults, on the average, have and have not completed high school. These differences follow national differences with two exceptions: there is a decrease, rather than an increase, in non-minority and total participation in Special Disabilities programs. Some of the declines are extreme: non-minority participation in all programs falls from 10.32% for less educated districts to 3.39% for more educated districts; non-minority participation in EMR programs declines from 4.02% to 1.37%; non-minority involvement in Other programs decreases from 2.83% to .65%. The corresponding decreases in minority participation rates are not as sharp.

South Regional Trends: National changes in special education rates as more educated districts are considered are echoed in the South. Participation in EMR, Other, and overall special education programs decreases and in Special Disabilities programs increases for districts whose adults, on the average, have completed high school. The sizes of these changes are approximately the same for minority, non-minority, and total enrollment.

West Regional Trends: Many of the apparent trends in the West run counter to national trends. However, the sizes of increases or decreases in the West are usually small and it is probably safe to assume the effect of average adult education upon special education participation in the West has not been differentiated in this analysis. One factor interfering with the analysis is the relatively small number of pupils involved in districts with average adult education level less than four years of high school. These districts contain just 3.6% (159,440 out of 4,333,836 pupils) of the enrollment in this region.

# OVERVIEW AND SAMPLE GRAPH DESCRIPTION

## MULTIPLE VARIABLE GRAPHS

REPORT TITLE: Special Education Participation Rates, Enrollment, and Percentage Minority Composition in Programs by Various Socio-economic Parameters - Graphical Display

## I. Report Format and Content:

In this section, three important aspects of Special Education are analyzed with respect to various social or economic characteristics of our Nation's school districts. As in the previous section, the rates at which the nation's entire student enrollment participate in EMR, TMR, Other programs, Special Disability, and Special Education as a whole are calculated for different values of some social or economic attribute of school districts. These rates can be graphed and trends can be observed immediately.

Besides total enrollment participation rates, this section analyzes two additional features of Special Education participation: the number of students enrolled in each program and the percentage of a program's enrollment which is Minority. Districts are partitioned into different parameter groups and averages for these values are computed. So, for example, if we are working with the parameter "Percentage of population living below poverty level" we would compute the average enrollment in EMR, TMR, etc., and the percentage of students in EMR, TMR, etc., which are minority for all districts with 0-5% population below poverty. The same calculations are done for the ranges 6-10%, 11-15%, 16-25%, and over 25% population below poverty. Then the values are presented graphically.

As in the previous section, F ratios are computed for each curve to estimate how likely any trends which they may suggest are statistically significant.

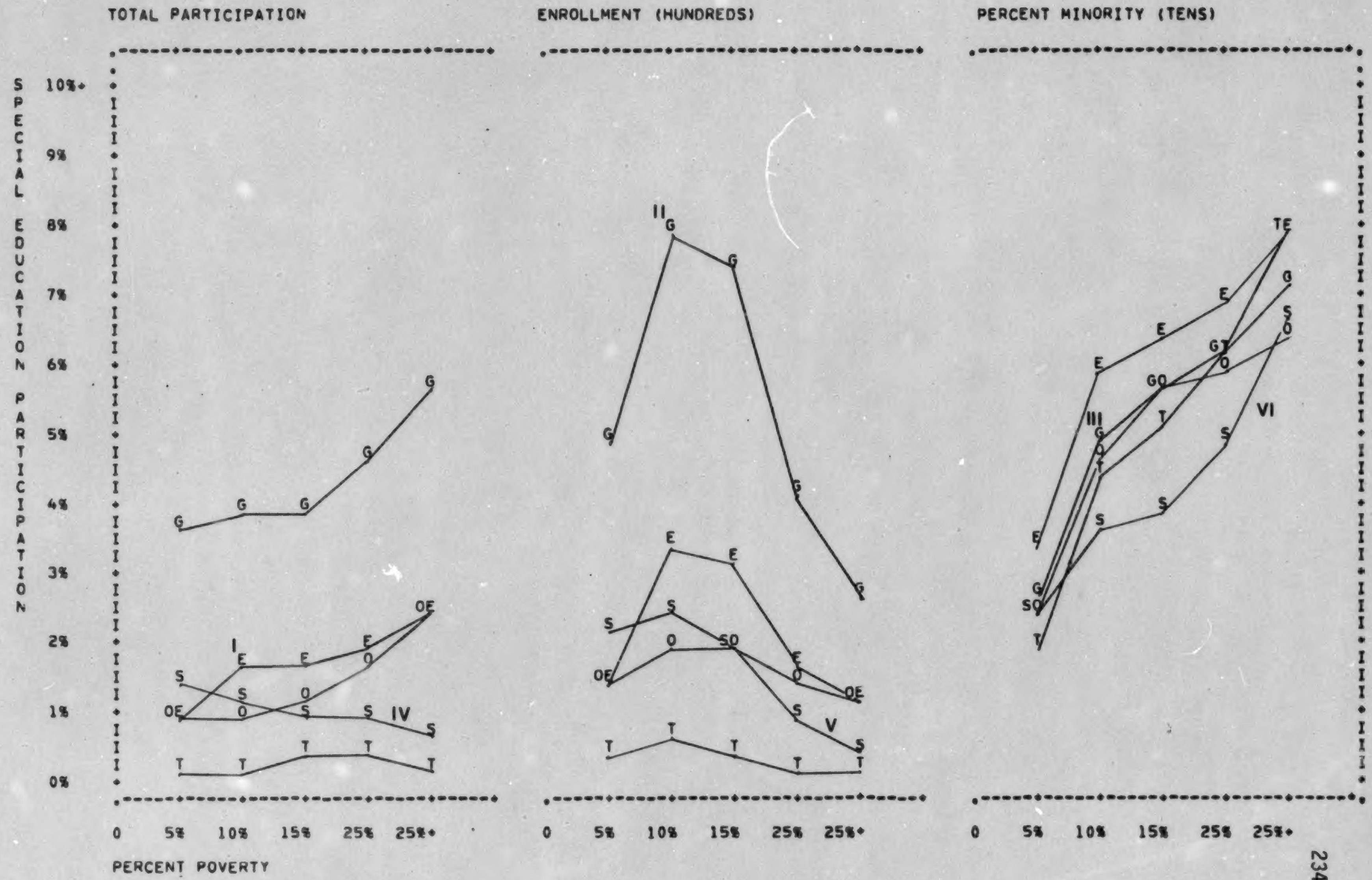
A complete set of graphs, for the regions and nation, is available for the following socio-economic variables:

- Percent Poverty
- Per Capita Income
- Percent Urban
- Percent Minority
- Enrollment
- Percent State Revenue
- Percent Title I Revenue
- Percent Burden
- Percent Poverty - \$3,000 +
- Percent Poverty - \$3,000 -

A sample graph follows.

JUL 02, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY HEW/OASPE

NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

## II. Sample Graph Description:

The data displayed in this graph is included in the OCR/SDELM file. The following examples illustrate the types of information contained in this graph:

- Point I, appearing on the graph on the left, corresponds to 1.75% participation in EMR of all students living in districts with 6-10% of the population living in poverty (for a more detailed explanation of this type of graph, see preceding section).

- At point II, we see that districts with 6-10% population below poverty standards have the largest average enrollments in Special Education - approximately 800 pupils in each district. The value 800 can be obtained by seeing how high point II is according to the scale on the left, which is 8, then multiply by 100 as the caption "Enrollment (hundreds)" indicates.

- Point III tells us that approximately 50% of the students enrolled in all Special Education programs in districts with 6-10% poverty are minority students. The value 50% is obtained by finding how high point III is using the scale on the left (doing this, we get 5%) and multiplying by 10 as the caption "Percent Minority (Tens)" indicates. So using what we learned from points II and III, we have the following information:
  1) Each district with 6-10% of their populations living in poverty has, on the average, 800 pupils enrolled in Special Education programs.
  2) Each district with 6-10% poverty has, on the average, 50% of their Special Education enrollment comprised of minority pupils.
  3) Therefore, these districts have, on the average, 400 minority students (50% of 800) in Special Education.

- Point IV labels the curve which follows pupils' participation rates in Special Disability programs as poverty increases in districts. The downward slope of the curve indicates that as districts become poorer, students receive Special Disability care less frequently.

- Point V designates the curve tracing the trend in average district enrollment in Special Disability programs as districts become more impoverished. The curve suggests that increasing district poverty and decreasing enrollment in Special Disabilities programs are linked - since the curve generally slopes downward. Furthermore, the F ratio of for this sequence of points indicates we can be certain this trend is actual and not an artifact of statistical fluctuation.

- Point VI shows that, as the number of people below the poverty level in districts increases, the ethnic composition of the enrollment in Special Disabilities programs changes drastically. For districts with almost no poverty (0-5%), minority pupils constitute little more than 20% of the enrollment in these programs, but in districts with severe poverty (over 25%), over 60% of the enrollment in Special Disabilities programs is minority.

III. Graph Descriptions:

Figure 1: Special Education participation rates, enrollments, and percentage minority composition in the various Special Education programs are related to increasing poverty in districts. Districts are partitioned into the following groups: 0-5%, 6-10%, 11-15%, 16-25%, and over 25% of the population living below the national poverty level.

Figure 2: This analysis focuses on the effect of per capita income on participation rates, enrollments, and percentage minority composition in Special Education programs. Districts fall into the following categories: those with average per capita incomes of \$0-\$1500, \$1501 - \$2500, \$2501 - \$3000, \$3001 - \$3500, \$3501 - \$5000, and over \$5000.

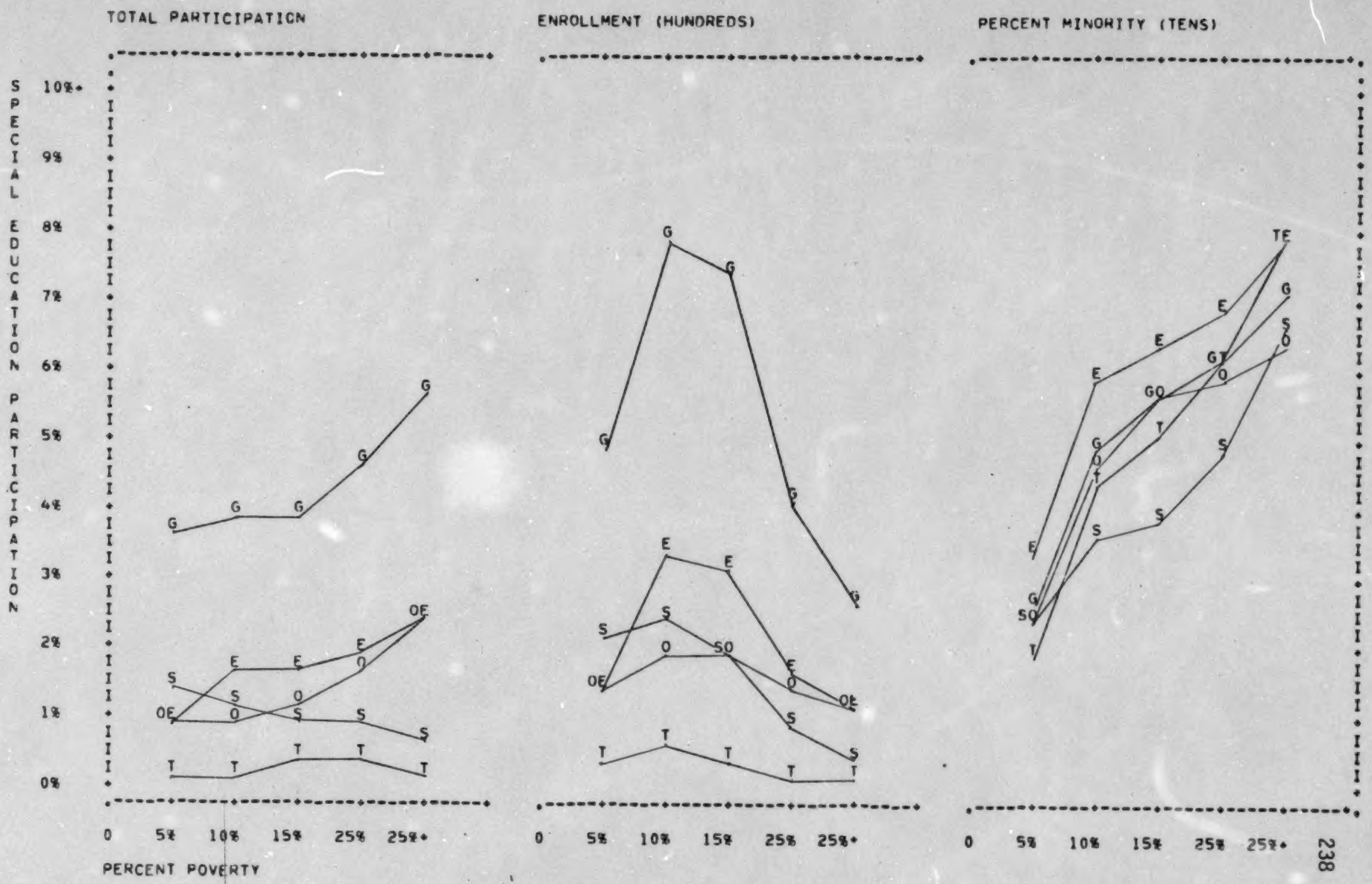
Figure 3: These graphs assist in analyzing the relation of participation rates, enrollments, and percentage minority composition in Special Education programs to the degree of urbanization of districts. Districts are divided into the following categories: those with 0-5%, 6-25%, 26-50%, 51-75%, 76-95%, and over 95% of their population inhabiting urban areas.

Figure 4: Participation rates, enrollments, and percentage minority composition in Special Education programs are analyzed in terms of the percentage of minority students in districts. Districts are divided into the following classes: those whose minority pupils comprise 0-10%, 11-20%, 21-30%, 31-50%, 51-80%, and over 80% of the total enrollment.

Figure 5: For these graphs, districts are grouped together in the following manner: those with total enrollments in the ranges 0-1500, 1501-3000, 3001-10000, 10001-25000, 25001-100000, and over 100000. Average participation rates, enrollments, and percentage minority composition in Special Education programs are computed and displayed graphically for increasing district sizes.

JUL 02, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT POVERTY HEW/OASPE

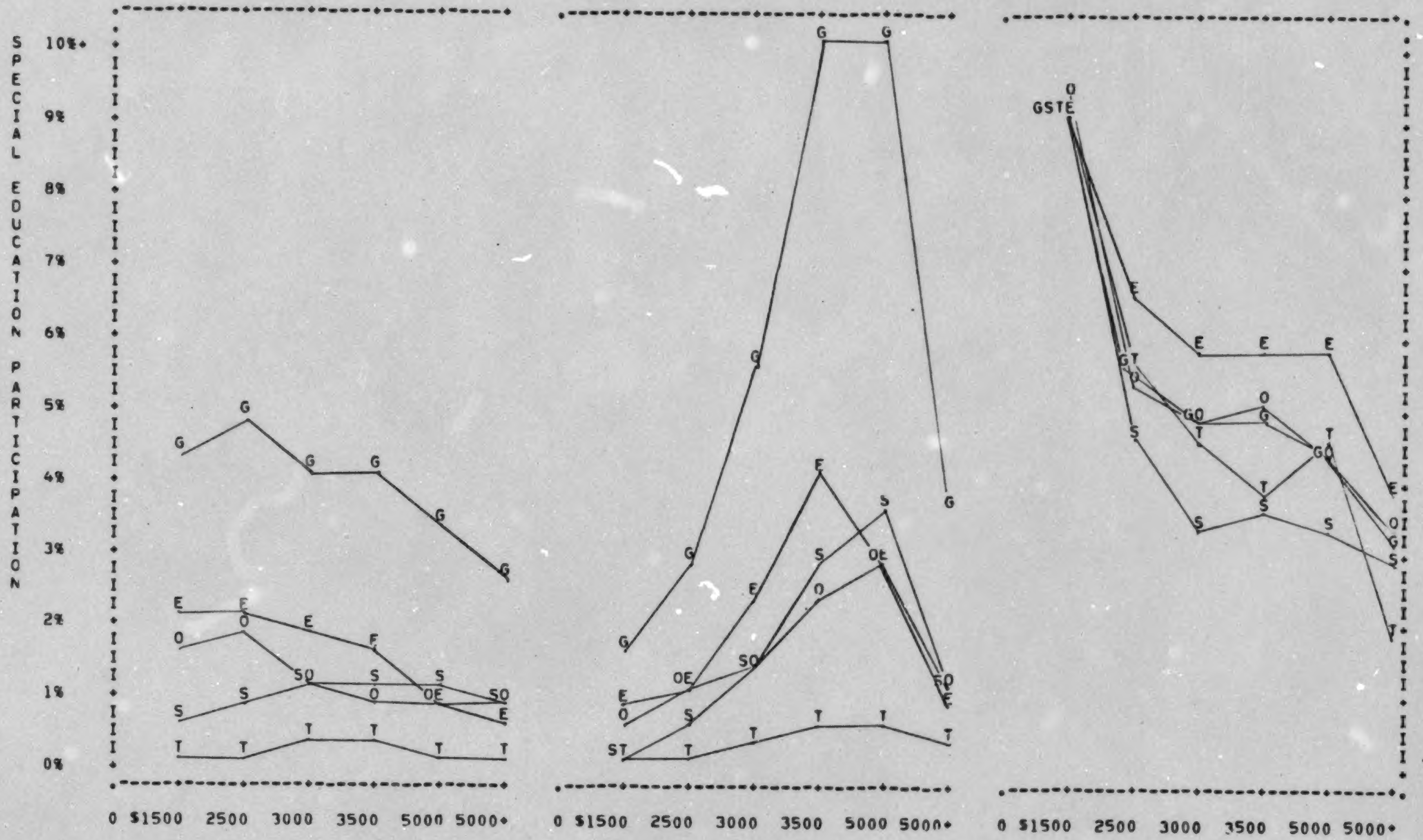
NATION



KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUL 02, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY PER CAPITA INCOME HEW/OASPE

NATION



TOTAL PARTICIPATION

ENROLLMENT (HUNDREDS)

PERCENT MINORITY (TENS)

PER CAPITA INCOME

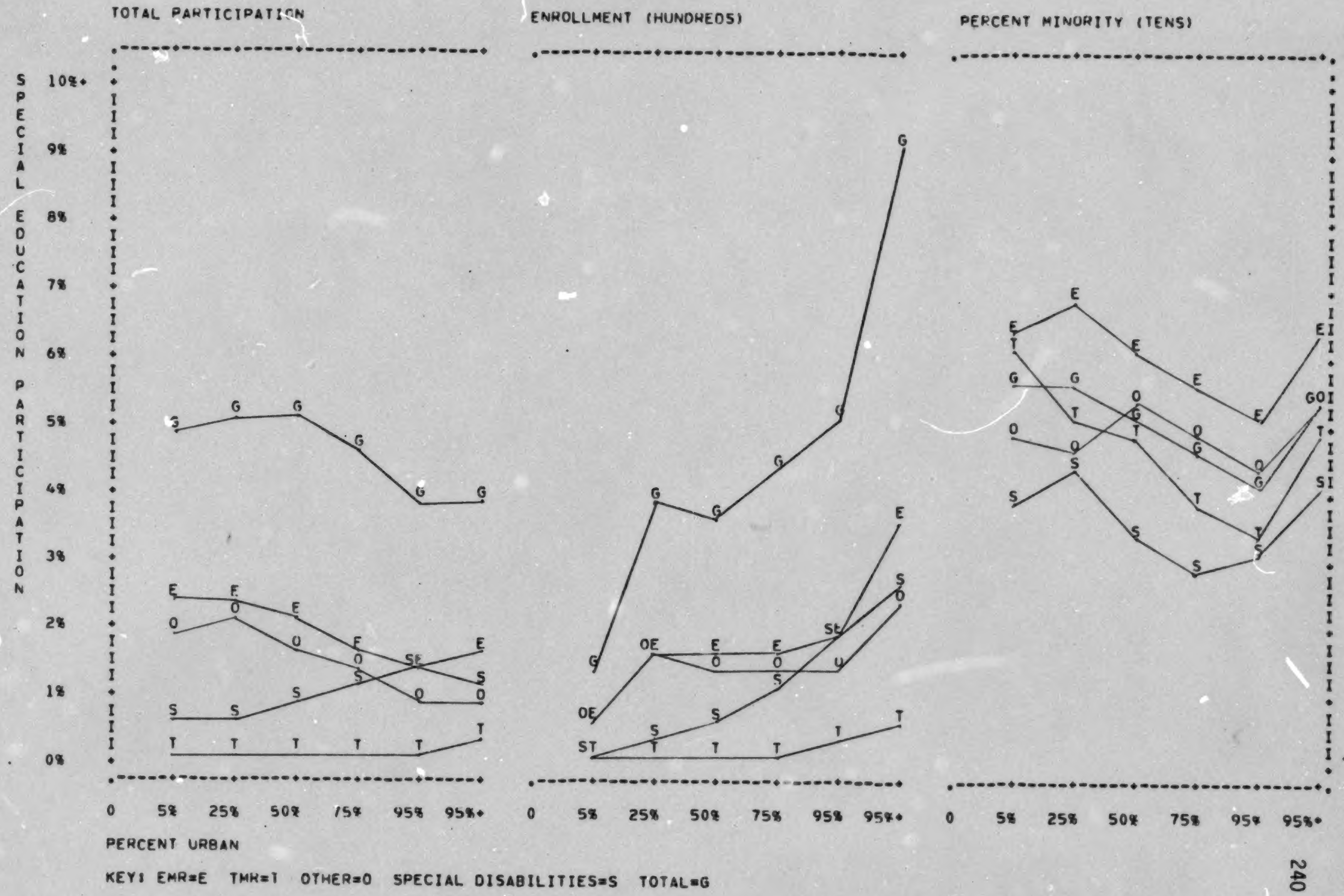
KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUL 02, 1975

PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT URBAN

HEW/OASPE

NATION

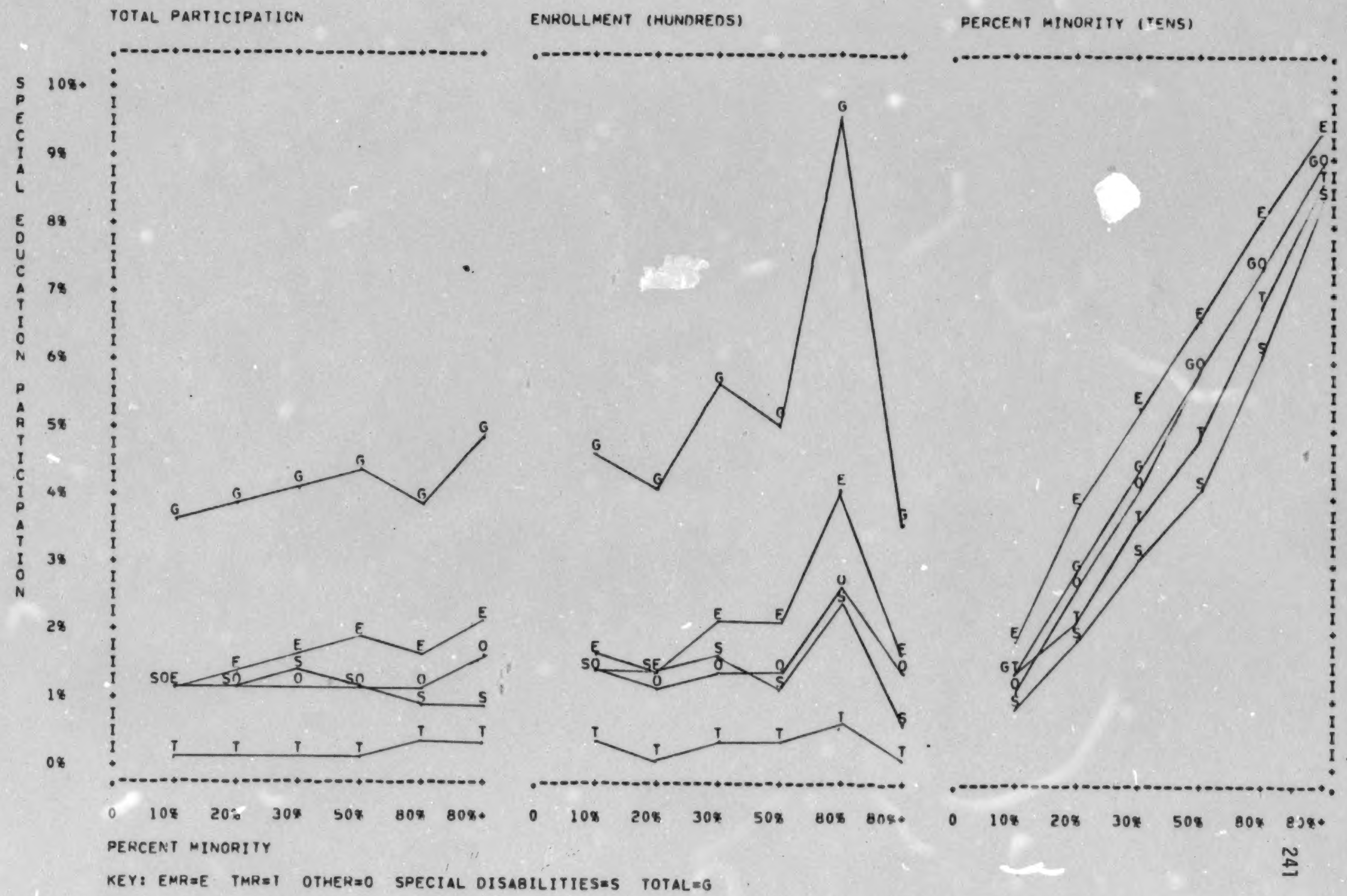


JUL 02, 1975

## PERCENT SPECIAL EDUCATION PARTICIPATION BY PERCENT MINORITY

HEW/OASPE

NATION


TOTAL PARTICIPATION

ENROLLMENT (HUNDREDS)

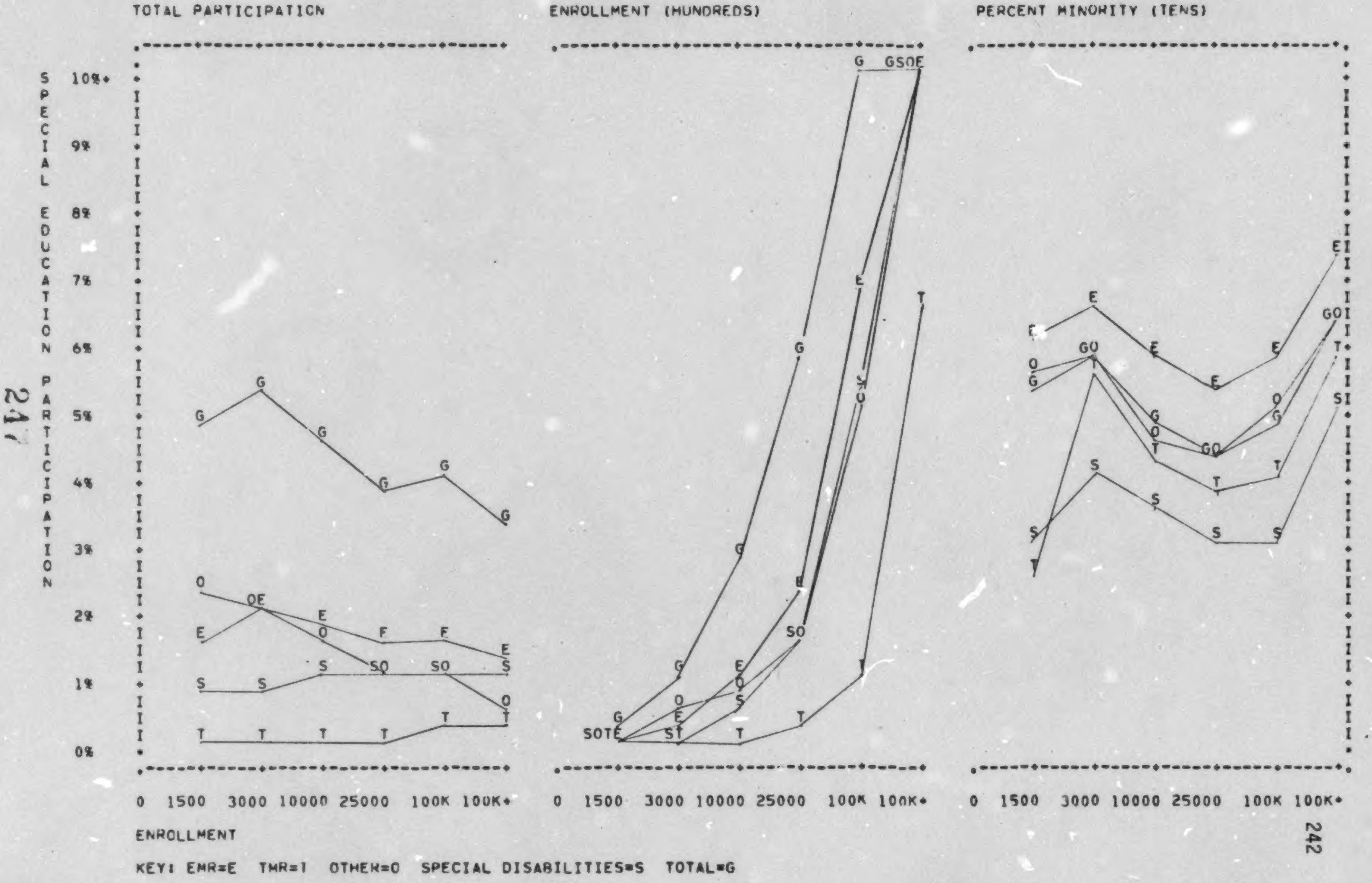
PERCENT MINORITY (TENS)

PERCENT MINORITY

KEY: EMR=E TMR=T OTHER=O SPECIAL DISABILITIES=S TOTAL=G

JUL 02, 1975 PERCENT SPECIAL EDUCATION PARTICIPATION BY ENROLLMENT HEW/OASPE

NATION



# APPENDIX B

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## APPENDIX B

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## INTRODUCTION

In this appendix, we list and describe a number of different reports which have been generated for this study. The complete reports are not included since they are quite voluminous but have been parpared under separate cover. Sample pages from each report, however, are presented. Sections of this appendix contain the following information about each report:

- its format and content
- how to interpret the data which is presented in tabular form for each report
- a brief analysis of information which can be derived from each report.

Reports are grouped into five general sections. The first grouping (Reports 1, 1.1, and 1.2) deal with Special Education Participation Statistics for all districts in the OCR/SDELM file. Participation figures (expressed as number of students enrolled, in Reports 1 and 1.1, and a percentage rates, in Report 1.2, are cited for each ethnicity's involvement in each phase of Special Education. The ethnicities addressed are Asian American, Black, American Indian, Spanish Surname, and Other (non-minority). Special Education is divided into the following areas: EMR or EMH; TMR or TMH; Other programs; and Special Disability programs.

In the second section of Reports (Reports 2.1 through 2.4), Special Education Participation figures are given for each ethnicity in each aspect of Special Education on the state, regional, and national level. Figures are expressed both as numbers of students enrolled and as percentage rates. Rates for an ethnicity are simply the percentage of that ethnicity's enrollment participating in a Special Education program. This section relies on data from the OCR/SDELM file, and from the OCR 1973 Survey information. Either of these data sources cover only a sampling of the districts in a Region. However, this section also includes estimations of Regional and National Totals by examining results from the districts surveyed and using this information to project regional and national figures.

The third section of this Appendix (Reports 3.1 through 3.14) analyzes Special Education participation for each ethnicity as a particular social or economic characteristic of districts changes. Information from the OCR/SDELM file regarding socio-economic conditions in districts is used to partition all districts into a few categories. For example, for one analysis, districts would be placed according to their per capita income into the following categories: \$0 - \$1,500; \$1,501 - \$2,500; \$2,501 - \$3,000; \$3,001 - \$3,500; \$3,501 - \$5,000; and over \$5,000. In this manner, trends in participation for both minority and non-minority students can be detected as social or economic conditions in districts change.

The fourth section (Report 4) considers districts' participation in overall Special Education. Also, figures are given in this report which measure various social and economic characteristics of a district (such as, per capita income, percentage of population living in urban areas, etc.). Additionally, these rates and characteristics are related to state, Regional, and National Averages. Report 4 looks at districts in the OCR/SDELM file and Report 4.1 (non-SDELM districts) considers districts covered in the OCR 1973 Survey but not in the OCR/SDELM data source.

The fifth section of reports in this Appendix (Reports 5.1 through 5.6) provide information about various educational aspects of our nation's school districts. Included in this section are figures concerning special school enrollments, resident students not attending school, non-resident pupils attending school in a districts, special school pupils receiving free public transportation, bilingual instruction programs, and school counts for the OCR 1973 Survey districts and the OCR/SDELM districts. With this conglomeration of information, it is clear why this section is entitled "Miscellaneous".

The concluding group of reports in this Appendix (Reports 6.1 and 6.2) describe the statistical analysis which has been performed on special education participation rates. Report 6.1 focuses on an analysis of variance which includes the F Ratio - a key statistical tool in this study. In Report 6.2, correlation coefficients are discussed.

# SPECIAL EDUCATION PARTICIPATION ON DISTRICT LEVEL

REPORT TITLE: Number of Pupils by Handicap and Race for Districts
Report 1

## I. Report Format and Content:

Report 1 gives the number of students of each ethnicity enrolled in each of the special education programs - EMR or EMH, TMR or TMH, Special Learning Disabilities, and Other Special Education Programs - for all districts included in the 1973 OCR Survey. Following the entries for a state's districts, a summary table for the entire state is presented. Also, Report 1 exists in two versions - the first covers all districts surveyed in 1973 by OCR and the second (a more compact version) focuses on districts with enrollments greater than 50,000. A sample entry is the following:

## NUMBER OF PUPILS BY HANDICAP AND RACE FOR STATES AND SELECTED DISTRICTS

### MARYLAND

| DISTRICT<br>HANDICAP | AMERICAN INDIAN | BLACK | ASIAN AMERICAN | SPANISH SURNAME | OTHER | TOTAL |
|---|---|---|---|---|---|---|
| | RACIAL ETHNIC BACKGROUND | | | | | |
| ANNE ARUNDEL COUNTY | | | | | | |
| SUM OF EMR, TMR, OTHER | 0 | 393 | 1 | 1 | 874 | 1269 |
| EMR OR EMH | 0 | 331 | 0 | 0 | 503 | 834 |
| TMR OR TMH | 0 | 52 | 1 | 1 | 300 | 354 |
| OTHER SPECIAL EDUCATION | 0 | 10 | 0 | 0 | 71 | 81 |
| SPECIFIC LEARNING DISABILITIES | 0 | 258 | 0 | 1 | 882 | 1141 |
| TOTAL SPECIAL EDUCATION | 0 | 651 | 1 | 2 | 1756 | 2410 |
| BALTIMORE CITY PUB SCH | | | | | | |
| SUM OF EMR, TMR, OTHER | 0 | 7540 | 0 | 0 | 1691 | 9231 |
| EMR OR EMH | 0 | 6896 | 0 | 0 | 1489 | 8385 |
| TMR OR TMH | 0 | 623 | 0 | 0 | 197 | 820 |
| OTHER SPECIAL EDUCATION | 0 | 21 | 0 | 0 | 5 | 26 |
| SPECIFIC LEARNING DISABILITIES | 0 | 345 | 0 | 0 | 154 | 499 |
| TOTAL SPECIAL EDUCATION | 0 | 7885 | 0 | 0 | 1845 | 9730 |
| BALTIMORE COUNTY | | | | | | |
| SUM OF EMR, TMR, OTHER | 2 | 301 | 5 | 12 | 2298 | 2618 |
| EMR OR EMH | 1 | 181 | 0 | 5 | 1009 | 1196 |
| TMR OR TMH | 1 | 56 | 1 | 1 | 519 | 578 |
| OTHER SPECIAL EDUCATION | 0 | 64 | 4 | 6 | 770 | 844 |
| SPECIFIC LEARNING DISABILITIES | 1 | 86 | 16 | 7 | 1842 | 1952 |
| TOTAL SPECIAL EDUCATION | 3 | 387 | 21 | 19 | 4140 | 4570 |
| CALVERT COUNTY | | | | | | |
| SUM OF EMR, TMR, OTHER | 0 | 171 | 0 | 0 | 67 | 238 |
| EMR OR EMH | 0 | 99 | 0 | 0 | 25 | 124 |
| TMR OR TMH | 0 | 32 | 0 | 0 | 21 | 53 |
| OTHER SPECIAL EDUCATION | 0 | 40 | 0 | 0 | 21 | 61 |
| SPECIFIC LEARNING DISABILITIES | 0 | 17 | 0 | 0 | 29 | 46 |
| TOTAL SPECIAL EDUCATION | 0 | 188 | 0 | 0 | 96 | 284 |
| CAROLINE COUNTY | | | | | | |
| SUM OF EMR, TMR, OTHER | 0 | 158 | 0 | 0 | 145 | 303 |
| EMR OR EMH | 0 | 111 | 0 | 0 | 71 | 182 |
| TMR OR TMH | 0 | 14 | 0 | 0 | 16 | 30 |
| OTHER SPECIAL EDUCATION | 0 | 33 | 0 | 0 | 58 | 91 |
| SPECIFIC LEARNING DISABILITIES | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL SPECIAL EDUCATION | 0 | 158 | 0 | 0 | 145 | 303 |
| CHARLES COUNTY | | | | | | |
| SUM OF EMR, TMR, OTHER | 0 | 380 | 0 | 0 | 162 | 542 |
| EMR OR EMH | 0 | 140 | 0 | 0 | 39 | 179 |
| TMR OR TMH | 0 | 31 | 0 | 0 | 24 | 55 |
| OTHER SPECIAL EDUCATION | 0 | 209 | 0 | 0 | 99 | 308 |
| SPECIFIC LEARNING DISABILITIES | 1 | 120 | 0 | 1 | 161 | 283 |
| TOTAL SPECIAL EDUCATION | 1 | 500 | 0 | 1 | 323 | 825 |

## II. Sample Report Description:

The data source for this table is the 1973 OCR survey. The following examples illustrate types of information contained in Report 1.

- 331 Black pupils participate in EMR or EMH programs in Anne Arrundel County
- 834 Pupils (of all races) are involved in EMR or EMH
- 651 Students in Anne Arundel County participate in the county's Special Education programs.

## III. General Observations:

Report 1 essentially contains detailed reference material, summarizing the Special Education data available for each district.

REPORT TITLE: Number of Pupils by Handicap and Race for Districts with
Enrollments Greater than 50,000
Report 1.1

## I. Report Format and Content:

This report contains the same information as the preceding report with one exception - only districts with enrollments greater than 50,000 are included in the table. Therefore, this table provides quick access to Special Education statistical information for large school districts. The 1973 OCR Survey provides the information appearing in this report.

REPORT TITLE: Percentage of Pupils by Handicap and Race for Districts with Enrollments Greater than 50,000
Report 1.2

## I. Report Format and Content:

Report 1.2 examines the rate at which students of each ethnicity enroll in each of the four special education categories. Percentages for an ethnic group's participation are expressed in terms of that group's enrollment, not the total student enrollment, in the district. Enrollment figures for each ethnicity are included in Report 1.2 for each district. Summary tables for each state are also present. A sample entry is the following:

PUPIL PERCENTAGE BY HANDICAP AND RACE
FOR DISTRICTS - OVER 50000 PUPILS

FLORIDA

| DISTRICT<br>HANDICAP | RACIAL ETHNIC BACKGROUND<br>AMERICAN INDIAN | BLACK | ASIAN AMERICAN | SPANISH SURNAME | OTHER | TOTAL |
|---|---|---|---|---|---|---|
| BREVARD COUNTY | | | | | | |
| SUM OF EMR, TMR, OTHER | 0.0 % | 5.70% | 0.65% | 1.03% | 0.92% | 1.49% |
| EMR OR EMH | 0.0 % | 4.64% | 0.65% | 0.77% | 0.46% | 0.96% |
| TMR OR TMH | 0.0 % | 0.53% | 0.0 % | 0.0 % | 0.11% | 0.16% |
| OTHER SPECIAL EDUCATION | 0.0 % | 0.53% | 0.0 % | 0.26% | 0.35% | 0.37% |
| SPECIFIC LEARNING DISABILITIES | 3.90% | 4.60% | 3.90% | 3.60% | 2.64% | 2.88% |
| TOTAL SPECIAL EDUCATION | 3.90% | 10.29% | 4.55% | 4.63% | 3.57% | 4.38% |
| TOTAL ENROLLMENT | 77. | 7180. | 154. | 389. | 52482. | 60282. |
| BROWARD COUNTY | | | | | | |
| SUM OF EMR, TMR, OTHER | 1.33% | 6.52% | 1.32% | 1.26% | 0.93% | 2.18% |
| EMR OR EMH | 1.33% | 5.00% | 0.44% | 0.77% | 0.48% | 1.49% |
| TMR OR TMH | 0.0 % | 0.38% | 0.88% | 0.20% | 0.16% | 0.21% |
| OTHER SPECIAL EDUCATION | 0.0 % | 1.15% | 0.0 % | 0.29% | 0.29% | 0.48% |
| SPECIFIC LEARNING DISABILITIES | 0.0 % | 1.10% | 1.32% | 0.98% | 0.75% | 0.83% |
| TOTAL SPECIAL EDUCATION | 1.33% | 7.62% | 2.64% | 2.24% | 1.68% | 3.01% |
| TOTAL ENROLLMENT | 150. | 30019. | 227. | 2452. | 102155. | 135003. |
| DADE COUNTY PUBLIC SCHOOLS | | | | | | |
| SUM OF EMR, TMR, OTHER | 0.53% | 4.92% | 0.29% | 1.52% | 1.36% | 2.34% |
| EMR OR EMH | 0.53% | 2.19% | 0.0 % | 0.64% | 0.45% | 0.96% |
| TMR OR TMH | 0.0 % | 0.35% | 0.14% | 0.24% | 0.16% | 0.23% |
| OTHER SPECIAL EDUCATION | 0.0 % | 2.38% | 0.14% | 0.65% | 0.75% | 1.15% |
| SPECIFIC LEARNING DISABILITIES | 1.59% | 1.12% | 1.00% | 1.06% | 1.23% | 1.18% |
| TOTAL SPECIAL EDUCATION | 2.12% | 6.04% | 1.29% | 2.58% | 2.64% | 3.52% |
| TOTAL ENROLLMENT | 189. | 64573. | 699. | 66858. | 112076. | 244395. |
| DUVAL COUNTY SCHOOL BOARD | | | | | | |
| SUM OF EMR, TMR, OTHER | 0.0 % | 5.14% | 0.0 % | 4.88% | 1.62% | 2.78% |
| EMR OR EMH | 0.0 % | 3.77% | 0.0 % | 0.0 % | 0.96% | 1.89% |
| TMR OR TMH | 0.0 % | 0.42% | 0.0 % | 0.0 % | 0.20% | 0.27% |
| OTHER SPECIAL EDUCATION | 0.0 % | 0.95% | 0.0 % | 4.88% | 0.45% | 0.62% |
| SPECIFIC LEARNING DISABILITIES | 0.0 % | 1.16% | 0.0 % | 2.44% | 1.32% | 1.27% |
| TOTAL SPECIAL EDUCATION | 0.0 % | 6.30% | 0.0 % | 7.32% | 2.94% | 4.05% |
| TOTAL ENROLLMENT | 34. | 36916. | 60. | 41. | 74489. | 111540. |
| HILLSBOROUGH COUNTY | | | | | | |
| SUM OF EMR, TMR, OTHER | 0.36% | 5.13% | 0.69% | 1.57% | 1.69% | 2.32% |
| EMR OR EMH | 0.36% | 3.80% | 0.69% | 0.74% | 0.91% | 1.44% |
| TMR OR TMH | 0.0 % | 0.45% | 0.0 % | 0.21% | 0.21% | 0.25% |
| OTHER SPECIAL EDUCATION | 0.0 % | 0.88% | 0.0 % | 0.62% | 0.57% | 0.63% |
| SPECIFIC LEARNING DISABILITIES | 0.36% | 1.53% | 3.45% | 1.50% | 1.47% | 1.48% |
| TOTAL SPECIAL EDUCATION | 0.71% | 6.66% | 4.14% | 3.07% | 3.16% | 3.81% |
| TOTAL ENROLLMENT | 281. | 21359. | 290. | 7131. | 84781. | 113842. |
| ORANGE CO | | | | | | |
| SUM OF EMR, TMR, OTHER | 7.03% | 7.10% | 0.31% | 1.26% | 1.40% | 2.49% |
| EMR OR EMH | 7.03% | 4.68% | 0.31% | 1.03% | 0.86% | 1.60% |
| TMR OR TMH | 0.0 % | 0.65% | 0.0 % | 0.0 % | 0.21% | 0.29% |
| OTHER SPECIAL EDUCATION | 0.0 % | 1.77% | 0.0 % | 0.22% | 0.33% | 0.60% |
| SPECIFIC LEARNING DISABILITIES | 0.0 % | 0.36% | 0.31% | 0.15% | 0.72% | 0.64% |
| TOTAL SPECIAL EDUCATION | 7.03% | 7.45% | 0.61% | 1.40% | 2.11% | 3.12% |
| TOTAL ENROLLMENT | 185. | 16262. | 327. | 1354. | 67338. | 85466. |

## II. Sample Report Description:

The 1973 OCR Survey is the basis for this data. The following examples illustrate types of information contained in Report 1.2:

- 2.19% of the black students enrolled in the Dade County Public School District receive EMR or EMH care.
- .96% of all of the students in this district are enrolled in the EMR or EMH program.
- 6.04% of the black students in this district take part in Special Education of some kind while only 3.52% of all students participate in Special Education. So the average black pupil in Dade County is nearly twice as likely to be enrolled in a special education program as the average Dade County student. In other words, black students in Dade County participate in Special Education programs at a much higher rate than students as a whole do.
- 64,573 black pupils attend school in this district. Dade County's total enrollment is 244,395.

## III. General Observations:

Generally, black students in particular and minority pupils as a whole participate in special education at a higher frequency than non-minority (other) students do.

# SPECIAL EDUCATION PARTICIPATION ON STATE, REGIONAL, AND NATIONAL LEVEL

REPORT TITLE: Regional and National Statistics for Special Education
Participation by Ethnic Background Projected from Districts
Surveyed
Report 2.1

## I. Report Format and Content:

Report 2.1 contains detailed statistical information about Special Education in each of four regions of the U. S. - Northeast, Midwest, South, and West. Besides considering the participation of the total student enrollment in a region, the report gives participation figures for each of five ethnicities - American Indian, Black, Asian American, Spanish Surname, and Non-minority (Other). Participation figures are expressed as both the total number of students of an ethnicity enrolled in a program and the percentage of students of an ethnicity involved in a program. National Summary information is also included in this table.

National and regional totals are estimated based on the sample of districts contained on the composite OCR/SDELM File. The probability of a given district being selected can be estimated and, from this probability, regional statistics can be projected. For example, if a district surveyed is likely to be selected just one time in ten, we hypothesize that nine other districts with similar characteristics were passed over when the survey was taken. So to include the effect of all ten districts (the one surveyed and the nine not surveyed) on the regional total, the information regarding the district chosen is counted ten times in a regional tabulation.

The structure of this table is demonstrated by the following example:

NUMBER OF PUPILS BY HANDICAP AND RACE
SPECIAL EDUCATION PARTICIPATION

MIDWEST

| HANDICAP | RACIAL ETHNIC BACKGROUND<br>AMERICAN INDIAN | BLACK | ASIAN AMERICAN | SPANISH SURNAME | OTHER | TOTAL |
|---|---|---|---|---|---|---|
| EMR OR EMH | 633. | 50280. | 133. | 3649. | 85136. | 139829. |
| TMR OR TMH | 133. | 2980. | 17. | 451. | 15437. | 19018. |
| OTHER SPECIAL EDUCATION | 1779. | 14887. | 48. | 1623. | 38695. | 57032. |
| LEARNING DISABILITIES | 365. | 18414. | 347. | 3678. | 70997. | 93800. |
| TOTAL SPECIAL EDUCATION | 2910. | 86561. | 545. | 9400. | 210263. | 309678. |
| TOTAL ENROLLMENT | 67150. | 1521379. | 27678. | 191219. | 7363329. | 9170782. |
| | | | | | | |
| EMR OR EMH | 0.94% | 3.30% | 0.48% | 1.91% | 1.16% | 1.52% |
| TMR OR TMH | 0.20% | 0.20% | 0.06% | 0.24% | 0.21% | 0.21% |
| OTHER SPECIAL EDUCATION | 2.65% | 0.98% | 0.17% | 0.85% | 0.53% | 0.62% |
| LEARNING DISABILITIES | 0.54% | 1.21% | 1.26% | 1.92% | 0.96% | 1.02% |
| TOTAL SPECIAL EDUCATION | 4.33% | 5.69% | 1.97% | 4.92% | 2.86% | 3.38% |

## II. Sample Report Description:

The information in this table, based on the 1973 OCR survey, is typified by the following examples:

- 633 is approximately the total number of American Indian students in the Midwest participating in the EMR or EMH programs. The number 633 was projected from the number of American Indians in EMR or EMH in the districts surveyed.
- 67,150 students is the total American Indian enrollment in the Midwest region, according to projected statistics.
- .94% of the American Indian enrollment (633 students out of 67,150) in the Midwest is involved in EMR or EMH, according to projected statistics based on the districts sampled in 1973 by OCR.
- 4.33% is the projected rate at which American Indian pupils participate in Special Education programs of all kinds.

## III. General Observations:

The projected total enrollments agree fairly well with the actual totals which are available. The total national enrollment, projected from OCR 1973 Survey data, is 39,967,552 which is approximately 10% below the actual total of 44,301,421. Regional projected totals vary from the actual totals, being quite accurate for the largest Region (differ by 1% in the South) and off by 8 - 30% for the three smaller Regions.

Importantly, the projected rates of participation are consistent with the actual rates for students in districts surveyed. This consistency suggests that the analysis which is carried out for districts surveyed is valid for all districts in the Nation. In other words, the districts in the OCR/SDELM (which constitute a large percentage of the nation's districts) can be statistically analyzed in a meaningful way and conclusions about special education participation for the entire nation can be reached.

REPORT TITLE: Statistics for Special Education Participation by Ethnic Background - Actual Figures and Projected National Figures Using Districts Included in the OCR 1973 Survey and in the OCR/SDELM file
Report 2.2

## I. Report Format and Content:

This report examines Regional and National participation in EMR, TMR, Other programs, Special Disability programs, and Total Special Education for each ethnicity's enrollment and for total enrollment. An ethnicity's participation in a program is expressed in two ways: the total number of students of that ethnicity involved in the program; and the percentage of that ethnicity's enrollment involved in the program. These figures are generated in four distinct manners:

- using statistics for districts in the OCR 1973 Survey
- taking the statistics for districts in the OCR 1973 Survey and projecting them to the Region or Nation as a whole
- using statistics for districts in the OCR/SDELM file
- taking the statistics for districts in the OCR/SDELM file and projecting them to the Region and Nation

"Projecting" statistics is simply the following procedure: only a sampling of each Region's districts are included in the OCR Survey or in the OCR/SDELM file, so enrollment information for districts absent from the OCR Survey or OCR/SDELM file must be estimated. To attain this end, the probabilites of selection for districts included in a data source are used to predict the overall special education figures for the region. For example, if we know a district in the OCR/SDELM file had one chance in three of being selected, we assume there are two districts, with characteristics similar to the district selected, which were omitted from the OCR/SDELM file. Therefore, the district selected is counted three times (once for itself and two other times for districts which are not represented on the file). In this way, we can estimate total enrollment counts knowing information about a sample of the districts in that Region.

This report demonstrates several qualities of the data with which we are working. First of all, by comparing the OCR Survey data with that of the OCR/SDELM file, we discover whether the districts omitted from the OCR/SDELM file have special education participations which are anomalous with respect to the participation of districts in the file. In effect, this report indicates how well information about districts in the OCR/SDELM file (which is used for most of the analysis in this study) approximates the data on OCR Survey districts.

If national totals projected from the OCR Survey data and from the OCR/SDELM file data are similar, we have additional evidence that the two data sources contain essentially the same information about districts' special education participation and that the projection technique produces consistent results. A sample record from this report is the following:

JUL 17, 1975
TABLE 1.1

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HEW/OASPE

# NUMBER OF PUPILS BY HANDICAP AND RACE
# SPECIAL EDUCATION PARTICIPATION

NATION

| HANDICAP | RACIAL ETHNIC BACKGROUND<br>AMERICAN INDIAN | BLACK | ASIAN AMERICAN | SPANISH SURNAME | OTHER | TOTAL |
|---|---|---|---|---|---|---|
| EMR OR EMH | 4629. | 228210. | 883. | 37264. | 331652. | 602646. |
| TMR OR TMH | 1755. | 20721. | 328. | 6257. | 51362. | 80421. |
| OTHER SPECIAL EDUCATION | 8675. | 126926. | 1260. | 34782. | 303824. | 475470. |
| LEARNING DISABILITIES | 2251. | 75369. | 2767. | 33289. | 310839. | 424515. |
| TOTAL SPECIAL EDUCATION | 17310. | 451227. | 5237. | 111588. | 997693. | 1582973. |
| TOTAL ENROLLMENT | 274407. | 7016071. | 265399. | 2627997. | 29784720. | 39967552. |
| | | | | | | |
| EMR OR EMH | 1.69% | 3.25% | 0.33% | 1.42% | 1.11% | 1.51% |
| TMR OR TMH | 0.64% | 0.30% | 0.12% | 0.24% | 0.17% | 0.20% |
| OTHER SPECIAL EDUCATION | 3.16% | 1.81% | 0.47% | 1.32% | 1.02% | 1.19% |
| LEARNING DISABILITIES | 0.82% | 1.07% | 1.04% | 1.27% | 1.04% | 1.06% |
| TOTAL SPECIAL EDUCATION | 6.31% | 6.43% | 1.97% | 4.25% | 3.35% | 3.96% |

## II. Sample Report Description:

The data in this report, projected to the national level from statistical information about districts surveyed in 1973 by OCR, can be interpreted in the following fashion:

- 602,646 students in the entire nation participate in EMR or EMH, as projected from the number of students involved in EMR or EMH in districts of the OCR 1973 Survey
- 7,016,071 is the total Black school-age population, as projected by 1973 OCR data
- The OCR 1973 Survey, projected to the national level, estimates that .33% of all Asian American pupils in the nation participate in EMR or EMH
- 3.96% of all students in the nation are involved in Special Education, according to figures projected from data on districts included in the OCR 1973 Survey

## III. General Observations:

No matter which method is used to measure the participation of the total enrollment in Special Education, the figure arrived at is approximately 4%:

- for districts in OCR 1973 Survey, 4.16%
- projected from districts in OCR 1973 survey, 3.96%
- for districts in OCR/SDELM file, 4.04%
- projected from districts in OCR/SDELM file, 4.00%

No considerable variation is found between the rates calculated - for a given program on either the regional or national level - using each of these four sources of information.

REPORT TITLE: Statistical Analysis of State, Regional, and National Special
Education Participation by Ethnic Background
Report 2.3

## I. Report Format and Content:

Report 2.3 analyzes the participation of each state's minority, non-minority, and total student enrollment in each category of Special Education and in the overall Special Education program. An ethnic group's involvement in a program is expressed as the percentage of that group's state enrollment which participates in a program. Enrollment figures for each ethnicity are included in the table.

Ratios indicating how an ethnic group's participation rate compares with that rate for the remainder of an area's students are tabulated. Each district's Ratio for a Minority's participation in a program is computed as follows:

$$\frac{\dfrac{\text{Number of Minority in Program}}{\text{Number of Minority in District Enrollment}}}{\dfrac{\text{Number Not of that Minority in Program}}{\text{Number Not of that Minority in District Enrollment}}}$$

X Number of Students in Program in District

These figures for all districts are added together and the sum is divided by the total number of students in the Region participating in that program. In effect, a Regional weighted average is taken, giving more emphasis to districts with large Special Education programs.

Generally, Ratios greater than one indicate the participation rate in the Region for pupils of a given ethnicity is higher than the rate for the remainder of the pupils in that Region. Similarly, Ratios less than one correspond to less frequent participation.

If ethnicities' participation rates in a Special Education program are constant over the districts of a Region, then the Ratio will equal

$$\frac{\text{Rate of participation in program for pupils of given race in Region}}{\text{Rate of participation in program for the Rest of the Region's Enrollment}}$$

Any variations from this quotient reflect the importance of Ratio places on districts with large Special Education programs and on districts with Ratios much different from the Regional Ratio.

In summary, a Ratio equal to one means students of a given race participate in a program at the same rate as the rest of the Region's students. Ratios much different from one signal racial imbalance in the enrollment of that Region's program.

A measure, Deviation (Dev.), estimates how well the ethnic distribution of students in an area's Special Education program reflects the ethnic distribution of pupils in the area. In technical terms, Dev. gives the number of standard deviations separating the actual number of students of a given race participating in a Special Education program and the number which is expected if the ethnic makeup of an area's enrollment and the ethnic makeup of the program's enrollment are consistent.

In other words, suppose for example one out of every ten students in a Region is black, then we would expect one out of every ten students in EMR to be black - *if* a student's race and his likelihood of being in EMR are not related. Deviation measures how certain we are that race and likelihood of being enrolled in a program are connected; a *high Deviation* (greater than two) *means* a student's *ethnicity* almost certainly *affects* his *likelihood of being* placed *in the program*.

Table Information Key

| Name of Measure | Value | Meaning |
|---|---|---|
| Rate | X% | X out of every 100 students of a given Ethnicity participate in program. |
| Ratio | 1 | Students of given race participate in program at same rate as rest of students |
| | >1 | Students of given race participate at relatively high rate |
| | <1 | Students of given rate participate at relatively low rate |
| Dev. | <2 | Racial distribution in program fairly consistent with that in area |
| | ≥2 | Racial distribution in program not consistent with that in area |

This analysis is conducted on the State, Regional, and National level. A sample state entry is the following:

REGION: NORTHEAST
STATE : NEW JERSEY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP<br>EMR OR EMH<br>RATE | <br><br>RATIO | <br><br>DEV. | <br>TMR OR TMH<br>RATE | <br><br>RATIO | <br><br>DEV. | <br>OTHER SPECIAL EDUC.<br>RATE | <br><br>RATIO | <br><br>DEV. | <br>SPECIAL DISABILITY<br>RATE | <br><br>RATIO | <br><br>DEV. | TOTAL SPECIAL EDUC.<br>RATE | <br>RATIO | <br>DEV. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL MINORITY | 1.94% | 2.55 | 4.8 | 0.27% | 0.91 | 1.3 | 2.28% | 5.91 | 26.0 | 0.72% | 1.60 | 3.1 | 5.21% | 2.90 | 14.2 |
| AMERICAN INDIAN | 13.69% | 9.61 | 2.6 | 0.0 % | 0.0 | 0.2 | 0.0 % | 0.0 | 1.2 | 0.35% | 0.58 | 0.5 | 14.24% | 3.32 | 1.7 |
| BLACK | 2.06% | 2.48 | 5.0 | 0.26% | 0.84 | 1.0 | 2.24% | 2.30 | 17.6 | 0.79% | 1.61 | 3.0 | 5.36% | 2.00 | 11.2 |
| ASIAN AMERICAN | 0.40% | 0.36 | 1.1 | 0.22% | 1.47 | 0.9 | 0.77% | 0.41 | 4.9 | 0.51% | 0.44 | 0.9 | 1.89% | 0.46 | 3.1 |
| SPANISH SURNAME | 1.57% | 0.99 | 2.0 | 0.30% | 0.94 | 0.7 | 2.47% | 1.58 | 10.7 | 0.51% | 0.86 | 1.3 | 4.85% | 1.17 | 6.0 |
| OTHER | 0.72% | 0.49 | 4.0 | 0.26% | 1.65 | 1.3 | 0.66% | 0.35 | 26.0 | 0.97% | 0.76 | 3.1 | 2.61% | 0.50 | 14.2 |
| TOTAL | 1.40% | 0.0 | 0.0 | 0.26% | 0.0 | 0.0 | 1.56% | 0.0 | 0.0 | 0.83% | 0.0 | 0.0 | 4.05% | 0.0 | 0.0 |
| ENROLLMENT COUNT |  | 6765. |  |  | 1280. |  |  | 7554. |  |  | 4018. |  |  | 19617. |  |

II. Sample Report Description:

Data in this table is obtained from the OCR/SDELM file. The following examples illustrate how to interpret information in Report 2.3:

- 2.28% of all minority students in New Jersey participate in Other Special Education programs while only .66% of the non-minority pupils in this state are involved in other programs.
- The total minority Ratio under Other Special Education is very high (5.91) and that of Non-minority is low (.35). The ratio statistic 5.91 indicates that, in New Jersey, minority children take part in Other Special Education programs at a rate much higher than the rate at which non-minority children participate. If the participation rates were not affected by ethnicity, we would expect this ratio to be one; that is, minority children participate in the programs at the same rate as non-minority children do.
- The Deviation measure (Dev.) reflects the fact that the actual distribution differs markedly from a racially independent distribution. The number of minority and non-minority students in the program vary by 26 standard deviations from the numbers which would occur if ethnicity were irrelevant. Unexpected variations due to random fluctuations in data are usually limited to two standard deviations so this result in New Jersey suggests that, for this state, the ethnicity of a student and his likelihood of receiving training in Other Special Education programs are related.
- An example with numbers may be helpful at this point. Suppose a state has 10,000 non-minority students and 5,000 minority students. If 66 non-minority pupils are in a Special Education program (participation is .66%) then we would expect about 33 minority students to be involved in this program if a student's ethnicity does not affect his likelihood of being in a program. So if instead it turns out that 114 minority students are in the program, it is unsound to assume that a student's ethnicity has no effect on his probability of participating in a program. In this circumstance, ratios will differ substantially from one and Deviations (Dev.) will be much greater than zero.
- An analysis of New Jersey's TMR program shows that minority and non-minority students participate at nearly the same rate (.27% and .26%). Therefore, we would expect the ratios to be close to one. (They are .91 for Minority and 1.65 for Non-minority.) From these results we can surmise that a pupil's race has little to do with his likelihood of receiving TMR training in New Jersey. The Deviation meausre (1.3) is close enough to zero to support an assumption that the ethnic makeup of the enrollment in the TMR program is consistent with the ethnic makeup of the school-age population of New Jersey.

- 6765 students in the districts sampled in New Jersey take part in the EMR or EMH programs.
- 5.21% of the minority pupils in New Jersey are involved in Special Education and 2.61% of the non-minority students participate. So, for the entire state, minority students participate in these programs at a rate twice that of non-minority pupils. Consequently, the ratios should be near 2 for Minority (2.90) and 1/2 for Other (.50). Since the ratio of rates is two, twice as high as it would be if ethnicity and participation were not related, we would expect high deviations (14.2). Deviations of this magnitude indicate it is extremely unlikely that the relatively high rate of minority participation is due to chance.

## III. General Observations:

That a student's ethnicity affects his likelihood of being placed in a Special Education program clearly holds on the state level. Two distinct statistical measures confirm this observation. The Ratio measure, which should equal one if race and participation are independent, is generally much greater than one for minority participation in EMR, Other programs, and Special Education as a whole. When the Ratio is greater than one for Minorities, minority pupils are participating in Special Education at a higher rate than non-minority pupils are, which is usually the case for American Indians, Blacks, and Spanish Surnamed pupils.

Also, if ethnicity does not affect participation, Deviations should seldom be greater than 2. However, on the state level, Deviations on the order of ten are common for participation in EMR, Other programs, and Total Special Education. A high Deviation indicates that the distribution of ethnicities in a program is not similar to the distribution of ethnicities in an areas overall school-age population.

REPORT TITLE: Statistical Analysis of State, Regional, and National Participation in EMR, TMR, and Special Disability Programs by Ethnic Background
Report 2.4

## I. Report Format and Content:

This table contains information about the participation of each state's minority, non-minority, and total pupil enrollment in all categories of Special Education except for Other Special Education programs. The most interesting statistics in this table concern participation in "Total Special Education" where total Special Education includes only EMR, TMR, and Special Disability programs. These figures can be contrasted with those totals from the preceding table to discern the effect of Other Special Education programs on the rates at which ethnic groups participate in Special Education programs. Regional and National summary tables also appear. The general format of the data appears below (see Report 2.3 for more detail):

REGION: MIDWEST
STATE : SOUTH DAKOTA
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP<br>EMR OR EMH RATE | RATIO | DEV. | TMR OR TMH RATE | RATIO | DEV. | OTHER SPECIAL EDUC. RATE | RATIO | DEV. | SPECIAL DISABILITY RATE | RATIO | DEV. | TOTAL SPECIAL EDUC. RATE | RATIO | DEV. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL MINORITY | 1.02% | 1.66 | 1.9 | 0.10% | 0.72 | 0.7 | 0.0 % | 0.0 | 0.0 | 0.12% | 3.00 | 0.7 | 1.24% | 1.71 | 1.5 |
| AMERICAN INDIAN | 0.97% | 1.64 | 2.9 | 0.09% | 0.60 | 0.9 | 0.0 % | 0.0 | 0.0 | 0.13% | 3.36 | 0.7 | 1.18% | 1.67 | 1.6 |
| BLACK | 2.47% | 0.54 | 1.1 | 0.0 % | 0.0 | 0.4 | 0.0 % | 0.0 | 0.0 | 0.0 % | 0.0 | 0.0 | 2.47% | 0.43 | 1.1 |
| ASIAN AMERICAN | 0.0 % | 0.0 | 0.6 | 0.0 % | 0.0 | 0.3 | 0.0 % | 0.0 | 0.0 | 0.0 % | 0.0 | 0.0 | 0.0 % | 0.0 | 0.7 |
| SPANISH SURNAME | 1.04% | 0.71 | 0.2 | 0.52% | 2.61 | 1.0 | 0.0 % | 0.0 | 0.0 | 0.0 % | 0.0 | 0.0 | 1.55% | 1.01 | 0.2 |
| OTHER | 0.91% | 0.58 | 1.9 | 0.23% | 1.43 | 0.7 | 0.0 % | 0.0 | 0.0 | 0.01% | 0.57 | 0.7 | 1.15% | 0.65 | 1.5 |
| TOTAL | 0.94% | 0.0 | 0.0 | 0.20% | 0.0 | 0.0 | 0.0 % | 0.0 | 0.0 | 0.03% | 0.0 | 0.0 | 1.17% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 227. | | | 48. | | | 0. | | | 8. | | | 283. | |

## II. Sample Report Description:

Data in this analysis comes from the OCR/SDELM file. The examples provided in this section demonstrate the type of information which can be derived from this report:

- Minority students in South Dakota participate in three categories of Special Education - EMR, TMR, and Special Disability - at a rate of 1.24%.
- 1.15% is the rate at which non-minority pupils take part in these three programs.
- In this table, the Ratio for minority pupils' participation in all phases of Special Education except for the Other programs is 1.71. The Ratio for minority pupils' involvement in Special Education as a whole is 2.46, a figure cited in Report 2.3.
- Table 4 indicates that minority students in South Dakota participate in all Special Education programs at a rate of 2.39% while non-minority pupils participate 1.52% of the time. Contrasting these two tables suggests that the effect of Other Special Education programs is to raise the rate of minority participation relative to that of non-minority participation. We see this in two ways: (1), when Other programs are considered, the minority rate goes from 1.24% to 2.39% while the non-minority rate only increases from 1.15% to 1.52%; (2) the minority Ratio increases from 1.71 to 2.46 when the effect of Other programs is taken into account. So, in South Dakota, the racial disparity in Special Education participation principally results from imbalances in the ethnic distribution in Other Special Education programs.

## III. General Observations:

This report supports the conclusion reached by the previous report: the ethnic composition of Special Education programs is not consistent with the ethnic composition of state's school-age population. Evidence for this conclusion is based on the Ratio values and the Deviation measures calculated for each state.

When this report is contrasted with the previous report (which includes participation in Other programs), we find that corresponding Ratios in the two reports are almost identical. Also, the Deviation measure in the first report for an ethnicity's participation in overall Special Education is slightly higher than the measure compiled in this report for participation in EMR, TMR, and Special Disabilities. This increase can be attributed to the necessarily larger enrollments in total Special Education than the enrollments in just three of its aspects.

The fact that no surprising inconsistencies were upturned in the Ratio or Deviation measures for these two reports suggests the following: racial imbalances in Special Education participation as a whole and in EMR, TMR, and Special Disabilities participation generally are similar in extent.

# RELATIONSHIPS BETWEEN SPECIAL EDUCATION PARTICIPATION
# AND
# DISTRICTS' SOCIO-ECONOMIC CHARACTERISTICS

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on District Size

Report 3.1

## I. Report Format and Content:

Each entry in this table follows the format of the entries in Report 2.3. Each ethnic group's participation in Special Education programs is given as a percentage of that group's enrollment in the Region and is accompanied by Ratio and Deviation statistics which indicate how the distribution of ethnicities in a program reflects the distribution of ethnicities in the Region's enrollment. In this particular table, districts in each region are grouped according to size into the following six categories: districts with enrollments of 0 to 1500, 1501 to 3000, 3001 to 10,000, 10,001 to 25,000, 25,001 to 100,000, and over 100,000.

In this table and in the tables following this one, Special Education participation rates are considered as functions of a parameter - in this case District size. In order to conduct analysis, the parameter, which takes on a continuous range of values, must be partitioned into a few classes - in this case, the six divisions 0-1500, 1501-3000, etc. The sizes of the divisions are arbitrary and are chosen so that approximately the same number of districts will fall into each classification. For example, if we had chosen in the current table divisions such as 0-25,000, 25,001 - 50,000, 50,001 - 75,000, 75,001-100,000 and over 100,000, almost all districts would have fallen into the first category and trends in participation rates with increasing district size would be obscured.

This analysis is carried out for Regionals and the Nation. A sample Regional entry includes the following data:

REGION: SOUTH
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

10.001 - 25.000 ENROLLMENT

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP | | | | | | | | | | | | TOTAL SPECIAL EDUC. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | | | |
| | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 3.78% | 4.64 | 13.3 | 0.36% | 2.21 | 2.4 | 2.16% | 2.60 | 9.4 | 1.32% | 1.59 | 3.6 | 7.62% | 2.75 | 13.0 |
| AMERICAN INDIAN | 3.66% | 0.52 | 0.5 | 0.42% | 1.33 | 0.4 | 0.42% | 0.97 | 1.0 | 0.16% | 0.46 | 0.5 | 4.66% | 0.67 | 0.8 |
| BLACK | 4.46% | 4.79 | 13.5 | 0.37% | 3.08 | 2.6 | 2.41% | 2.56 | 9.4 | 1.28% | 1.56 | 3.4 | 8.54% | 2.83 | 13.2 |
| ASIAN AMERICAN | 0.27% | 0.10 | 0.6 | 0.15% | 0.74 | 0.4 | 0.42% | 0.24 | 0.8 | 0.77% | 0.98 | 0.8 | 1.62% | 0.39 | 0.9 |
| SPANISH SURNAME | 1.15% | 0.48 | 0.8 | 0.34% | 0.83 | 0.6 | 1.35% | 0.90 | 1.1 | 1.59% | 1.41 | 1.4 | 4.47% | 0.80 | 1.2 |
| OTHER | 1.05% | 0.28 | 13.3 | 0.17% | 0.63 | 2.4 | 0.92% | 0.60 | 9.4 | 1.04% | 0.91 | 3.6 | 3.17% | 0.44 | 13.0 |
| TOTAL | 1.89% | 0.0 | 0.0 | 0.23% | 0.0 | 0.0 | 1.30% | 0.0 | 0.0 | 1.12% | 0.0 | 0.0 | 4.54% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 40813. | | | 4992. | | | 28096. | | | 24278. | | | 98179. | |

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## II. Sample Report Description:

The source of this table is the OCR/SDELM file. The types of information which can be derived from this table are illustrated by the following examples:

- 3.78% of the minority students in districts in the South with enrollments between 10,001 and 25,000 take part in the EMR program.
- 1.05% of the non-minority pupils in these districts participate in EMR programs.
- The ratios in EMR also suggest that minority students participate at a higher frequency than non-minority students. Specifically, a minority child is approximately four times as likely to be involved in EMR training as a non-minority child (as indicated by the ratio 4.64 for Total Minority or by .28 for Other) in districts of this size in the South. The ratio for Total is given as 0.0 only because it does not make sense to contrast the rate at which all students participate with the rate at which the remainder of the students (zero students) participate.
- Deviations of 13.3 for Total Minority's and Other's participation in EMR for these districts in the South are large enough to suggest that the ethnic distribution in the EMR enrollment is incongruous. A deviation of 13.3 means it is extremely unlikely that chance fluctuations cause the rate of minority participation in EMR to be four times higher than the non-minority rate.
- 40,813 is the number of pupils participating in EMR programs in the South's districts with enrollments of 10,001 to 25,000.
- 4.54% is the rate at which all students participate in Special Education as a whole in districts in the South with enrollments of 10,001 to 25,000.

## III. General Observations:

As districts become larger, participation in Special Education falls off. This trend appears nationally and regionally for non-minority, minority, and total enrollments. In particular, minority participation in Special Education programs in the South declines rapidly as larger districts are considered.

Regionally and nationally, participation in EMR and Other programs governs participation in Special Education as a whole. Participation in TMR is not affected by the size of the district and only in one Region does participation in Special Disability programs depend on district size (in the South, participation in Special Disability programs clearly increases as districts become larger).

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Percentage of District Population Living in Urban Areas
Report 3.2

## I. Report Format and Content:

The general format of the entries in this table follows that of the preceding tables in this section (see report 2.3 for detail). In this table, the districts in each region are partitioned into five classes - districts with 0% to 25% urban population, 26% to 50%, 51% to 75%, 76% to 95% and over 95%. A national summary also appears in this table. A sample entry follows:

REGION: NORTHEAST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

76-95% URBAN POPULATION

PAGE 5
MAY 28, 1975
HEW/OASPE

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP | | | | | | | | | | | | TOTAL SPECIAL EDUC. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | | | |
| | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 2.49% | 7.10 | 7.9 | 0.19% | 1.12 | 0.6 | 1.64% | 3.25 | 4.5 | 2.21% | 1.99 | 4.8 | 6.53% | 3.09 | 8.1 |
| AMERICAN INDIAN | 0.0 % | 0.0 | 0.2 | 0.0 % | 0.0 | 0.1 | 1.39% | 1.24 | 0.5 | 0.0 % | 0.0 | 0.4 | 1.39% | 0.32 | 0.5 |
| BLACK | 2.91% | 7.17 | 8.5 | 0.21% | 1.18 | 0.4 | 1.52% | 2.51 | 3.2 | 2.42% | 1.91 | 4.3 | 7.06% | 3.01 | 7.4 |
| ASIAN AMERICAN | 0.52% | 0.98 | 0.7 | 0.26% | 3.64 | 1.1 | 1.04% | 1.65 | 0.6 | 1.83% | 0.71 | 0.9 | 3.66% | 1.15 | 1.0 |
| SPANISH SURNAME | 1.28% | 1.59 | 1.3 | 0.11% | 0.46 | 0.5 | 2.14% | 3.14 | 3.5 | 1.57% | 1.73 | 2.2 | 5.11% | 1.92 | 3.2 |
| OTHER | 0.41% | 0.21 | 7.9 | 0.16% | 1.24 | 0.6 | 0.66% | 0.44 | 4.5 | 1.20% | 0.64 | 4.8 | 2.43% | 0.40 | 8.1 |
| TOTAL | 0.77% | 0.0 | 0.0 | 0.17% | 0.0 | 0.0 | 0.83% | 0.0 | 0.0 | 1.38% | 0.0 | 0.0 | 3.14% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 721. | | | 157. | | | 779. | | | 1298. | | | 2955. | |

## II. Sample Report Description:

The OCR/SDELM file provides the data cited in this analysis. Listed below are examples which illustrate the types of information which can be obtained from this table:

- 1.39% of the American Indian students living in regions in the Northeast with 76% to 95% urban population participate in Other Special Education programs.
- The Ratio for American Indian pupils involved in other programs is 1.24 which means that American Indian Students participate in these programs a little more frequently than the other students in these districts do.
- The Deviation measure for American Indian students in Other Special Education program in these districts is .5 which indicates these pupils are involved in this aspect of Special Education at a rate commensurate with the percentage of American Indian Students in these districts.

## III. General Observations:

As school districts contain larger and larger proportions of population living in urban areas, participation in Special Education (particularly EMR and Other programs) declines. This overall decline can be almost entirely attributed to minority rates which are larger than non-minority rates and more dependent upon urbanization.

Regionally, participation in Special Education in the South and West generally declines with urbanization while participation in the Midwest and Northeast fluctuates. In all Regions, non-minority students' participation in EMR, Other programs and total Special Education does not seem to be affected by the urbanization of a school district.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Percentage of Minority Enrollment in the District
Report 3.3

## I. Report Format and Content:

The general format of entries in this table is similar to that of the preceding tables in this section (see report 2.3 for detail). Districts are grouped, according to their percentage of minority population, into the following six categories: 0 to 10% Minority; 11 - 20%; 21 - 30%; 31 - 50%; 51 - 80%; and over 80%. The national average for a districts is 20% minority and 16% Black composition. This table includes a national summary. The following is a sample entry:

REGION: MIDWEST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

51-80% MINORITY

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP |  |  |  |  |  |  |  |  |  |  |  | TOTAL SPECIAL EDUC. |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | EMR OR EMH |  |  | TMR OR TMH |  |  | OTHER SPECIAL EDUC. |  |  | SPECIAL DISABILITY |  |  |  |  |  |
|  | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 2.65% | 2.23 | 26.8 | 0.17% | 1.09 | 0.8 | 0.62% | 1.59 | 7.5 | 1.58% | 0.77 | 15.2 | 5.02% | 1.31 | 12.5 |
| AMERICAN INDIAN | 1.30% | 0.88 | 0.9 | 0.03% | 0.30 | 0.9 | 1.03% | 1.45 | 2.7 | 1.01% | 0.83 | 0.3 | 3.97% | 0.92 | 0.8 |
| BLACK | 2.76% | 2.09 | 28.0 | 0.16% | 1.14 | 1.8 | 0.63% | 1.69 | 9.7 | 1.48% | 0.76 | 14.4 | 5.04% | 1.32 | 15.3 |
| ASIAN AMERICAN | 0.57% | 0.30 | 5.4 | 0.06% | 0.23 | 2.3 | 0.03% | 0.04 | 3.4 | 1.55% | 0.97 | 4.0 | 2.22% | 0.51 | 7.5 |
| SPANISH SURNAME | 1.96% | 0.92 | 4.1 | 0.22% | 0.97 | 0.9 | 0.51% | 0.65 | 3.8 | 2.45% | 1.10 | 2.0 | 5.13% | 0.96 | 3.8 |
| OTHER | 1.26% | 0.46 | 26.8 | 0.14% | 0.96 | 0.8 | 0.44% | 0.74 | 7.5 | 2.13% | 1.35 | 15.2 | 3.97% | 0.79 | 12.5 |
| TOTAL | 2.22% | 0.0 | 0.0 | 0.16% | 0.0 | 0.0 | 0.56% | 0.0 | 0.0 | 1.75% | 0.0 | 0.0 | 4.69% | 0.0 | 0.0 |
| ENROLLMENT COUNT |  | 24532. |  |  | 1773. |  |  | 6213. |  |  | 19315. |  |  | 51833. |  |

## II. Sample Report Description:

The following is representative of the information, taken from the OCR/SDELM file, which is contained in this table:

- The Ratio for total minority participation in EMR is 2.23 for districts with 51-80% minority composition in the Midwest. For non-minority participation in these programs, the Ratio is .46. These ratios indicate that a minority student is approximately twice as likely to participate in EMR as a non-minority student.

## III. General Observations:

As districts have greater percentages of minority pupils in their enrollment, participation in Special Education increases. However, both minority and non-minority participation decrease as districts with larger percentages of minority enrollments are considered, a paradox which calls for an explanation. The important thing to notice is that minority students participate in Special Education programs at a much higher rate than non-minority students do. So as districts with bigger percentages of minority students are examined, the total participation of students increases.

An example with numbers may be of great value at this point. Suppose the typical district in the 0 - 10% minority range has the following characteristics: 100 minority students, of which 10 participate in Special Education programs (10% participation rate); and 900 non-minority students, of which 27 are participating in Special Education (3% rate). So the participation rate for this district's total enrollment is 3.7% (37 out of 1000 pupils). Now, consider a district, with over 80% of its enrollment consisting of minority students, which has the following enrollment statistics: 900 minority students, of which 45 are involved in Special Education (5% rate); and 100 non-minority students, of which just 2 participate in Special Education (2% participation rate). So even though both Minorities and Non-minorities participate in Special Education at lower rates than they did in the first district we considered, the participation rate for the total enrollment is now higher - 4.7% (47 out of 1000 as opposed to 3.7%. This increase results from the larger percentage of minority students in the second district.

Regionally, total participation increases as percentage minority composition increases in the Midwest and South but fluctuates in the Northeast and West. Also, on the Regional and National level, participation in EMR or EMH programs seems to be the most important factor in variations in the total participation in Special Education. No clear trends appear in participation in the other areas of Special Education with one exception: districts consist of larger percentages of minority students, minority pupils' participation in Special Disability programs declines.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Per Capita Income
Report 3.4

## I. Report Format and Content:

The general format for entries in this table follows that of the preceding tables in this section (see report 2.3 for detail) - each ethnic group's participation in Special Education programs is given as a percentage of that group's enrollment in the region. These percentages are accompanied by Ratio and Deviation statistics. This particular analysis divides the districts in each region into six categories - average per capita income of 0 - 1500, 1501 - 2500, 2501 - 3000, 3001 - 3500, 3501 - 5000, and over 5000 - and analyzes each category. A national summary table is also compiled. Some sample records from this table appear below:

REGION: MIDWEST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

2501 - 3000 DOLLARS INCOME

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP EMR OR EMH RATE | RATIO | DEV. | TMR OR TMH RATE | RATIO | DEV. | OTHER SPECIAL EDUC. RATE | RATIO | DEV. | SPECIAL DISABILITY RATE | RATIO | DEV. | TOTAL SPECIAL EDUC. RATE | RATIO | DEV. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL MINORITY | 3.21% | 2.45 | 10.9 | 0.16% | 1.26 | 1.7 | 0.76% | 1.46 | 3.6 | 0.59% | 0.98 | 4.0 | 4.72% | 1.78 | 7.2 |
| AMERICAN INDIAN | 1.30% | 0.30 | 1.2 | 0.08% | 0.05 | 0.7 | 0.89% | 0.69 | 1.2 | 0.36% | 0.66 | 0.6 | 2.63% | 0.42 | 1.4 |
| BLACK | 3.43% | 2.62 | 11.3 | 0.16% | 1.27 | 1.7 | 0.71% | 1.38 | 3.1 | 0.53% | 0.90 | 3.9 | 4.83% | 1.84 | 7.3 |
| ASIAN AMERICAN | 1.28% | 0.39 | 0.7 | 0.06% | 0.76 | 0.5 | 0.18% | 0.36 | 0.7 | 0.61% | 1.22 | 0.9 | 2.14% | 0.56 | 0.8 |
| SPANISH SURNAME | 1.72% | 0.82 | 0.9 | 0.18% | 2.43 | 0.9 | 1.23% | 1.03 | 1.2 | 1.13% | 1.00 | 1.1 | 4.27% | 0.96 | 1.0 |
| OTHER | 1.86% | 0.49 | 10.9 | 0.21% | 1.11 | 1.7 | 0.63% | 1.02 | 3.8 | 0.88% | 1.73 | 4.0 | 3.58% | 0.67 | 7.2 |
| TOTAL | 2.35% | 0.0 | 0.0 | 0.20% | 0.0 | 0.0 | 0.67% | 0.0 | 0.0 | 0.78% | 0.0 | 0.0 | 4.00% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 14651. | | | 1217. | | | 4204. | | | 4846. | | | 24916 | |

## II. Sample Report Description:

The data source for this table is the OCR/SDELM file. The following kinds of information can be derived from this table:

- .16% of all minority students are involved in TMR training in those districts in the Midwest with per capita incomes of 2501 to 3000 dollars. .21% of the non-minority pupils participate in TMR programs in these same districts.
- 1.26 and 1.11, the Ratios for Total Minority and Other in this table, are close to one which suggests the ethnic composition of the enrollment in TMR is compatible with the ethnic composition of the school age population in the Midwest. This consistency would lead us to expect Deviations close to zero.
- 1.7, the Deviation measure for the participation of minority and non-minority students in TMR in these Midwest districts, is close enough to zero that the supposition that a student's likelihood of being in a TMR program does not depend upon his ethnicity is not severely challenged.

## III. General Observations:

Nationally, participation in Special Education decreases as a districts' per capita income increases. This general trend exists for both minority and non-minority enrollments in all Regions.

An overall decrease in EMR participation as per capita income rises leads to the national decrease in participation. This fall-off in EMR enrollments is especially apparent in the Northeast, Midwest, and South - particularly for minority pupils

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Percentage of People Below the Poverty Level
Report 3.5

## I. Report Format and Content:

The general format of entries from this table follows that of this section's preceding tables (see report 2.3 for detail). This particular analysis partitions districts according to how large a percentage of people in the district live in families with incomes below the poverty level. Districts are placed into one of five classes: districts with 0% to 5% of its inhabitants from families below the poverty level; 6% to 10%; 11% to 15%; 16% to 25%; and over 25%. Nationwide, 12% of the total population lies below the poverty level and 30% of the minority population falls into this category. This tables is concluded with a national summary. A sample entry is the following:

REGION: WEST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

OVER 25% POVERTY

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | TOTAL SPECIAL EDUC. | | |
| | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 1.44% | 3.04 | 3.5 | 0.23% | 1.42 | 1.1 | 1.91% | 1.10 | 3.2 | 0.30% | 1.85 | 2.4 | 3.87% | 5.98 | 3.5 |
| AMERICAN INDIAN | 1.16% | 1.14 | 1.9 | 0.15% | 0.80 | 0.6 | 3.36% | 0.97 | 3.4 | 0.18% | 0.29 | 0.9 | 4.85% | 5.56 | 2.3 |
| BLACK | 2.22% | 2.35 | 0.7 | 0.0 % | 0.0 | 0.2 | 3.33% | 1.26 | 0.9 | 0.56% | 1.78 | 0.4 | 6.11% | 1.58 | 1.0 |
| ASIAN AMERICAN | 2.08% | 1.54 | 0.9 | 0.0 % | 0.0 | 0.1 | 0.0 % | 0.0 | 0.1 | 0.0 % | 0.0 | 0.4 | 2.08% | 0.58 | 0.5 |
| SPANISH SURNAME | 1.68% | 2.01 | 2.2 | 0.30% | 1.22 | 1.0 | 0.61% | 0.38 | 1.2 | 0.40% | 2.08 | 2.9 | 2.99% | 1.10 | 1.9 |
| OTHER | 0.95% | 0.85 | 3.5 | 0.18% | 1.67 | 1.1 | 0.74% | 0.53 | 3.2 | 0.37% | 0.32 | 2.4 | 2.24% | 0.67 | 3.5 |
| TOTAL | 1.34% | 0.0 | 0.0 | 0.22% | 0.0 | 0.0 | 1.69% | 0.0 | 0.0 | 0.31% | 0.0 | 0.0 | 3.56% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 777. | | | 127. | | | 976. | | | 180. | | | 2060. | |

## II. Sample Report Description:

Illustrative interpretations of data from this table, derived from the OCR/SDELM file, are presented below:

- .30% of all minority students in the West living in extremely poor districts (over 25% poverty) receive special disability training; .37% of non-minority pupils participate in these programs. So in the West's most impoverished districts, non-minority students are a little more likely to receive Special Disability training than minority students are.

## III. General Observations:

Nationally, Special Education participation rates increase as the percentage of people living in poverty increases. This rise in participation is seen in two regions - the Midwest and South - but not in the Northeast or West.

Nationally and regionally, participation in TMR does not vary much as a district's poverty increases. Participation in Special Disability programs generally decreases as districts become poorer; this behavior is particularly prominent in the South and the West. In contrast, participation in EMR and Other programs shows an overall increase as districts become more impoverished; this increase occurs largely in the South and Midwest.

Interestingly enough, much of the overall rise in students' participation in Special Education as poorer districts are examined can be attributed to the behavior of minority enrollments. On the national level, minority students participation in EMR and Other programs rises steadily as poverty in districts becomes greater. However, regionally, trends in minority participation vary considerably. In the Northeast participation declines as districts become poorer; in the West and South, participation is not affected much by poverty; but in the Midwest, participation in Special Education (particularly in EMR and Other programs) is notably high (9% for all programs) for districts with over 25% of the population living below poverty. In all cases, minority participation is higher than non-minority participation and is more sensitive to the percentage of poverty in a district.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Percentage of People Living Below the Poverty Level in Districts with Per Capita Incomes less than $3,000

Report 3.6

## I. Report Format and Content:

This report, in conjunction with the subsequent report, attempts to deal more thoroughly with the impact of income distributions on Special Education participation rates. In the two reports preceding this one, the behavior of participation rates as per capita income increases and as the percentage of people below the povery level increases was analyzed. This analysis and the one that follows examine the following groups of districts: those districts with per capita income either under $3,000 (this report) or over $3,000 (next report) with a percentage of people living below the poverty level in ranges 0-5%, 6-10%, 11-15%, 16-25%, and over 25%. These two analyses discern trends in participation rates which may result from increasing concentrations of poverty in districts. In other words, this analysis contrasts districts whose family incomes are fairly uniform with districts which have pronounced diversity in family incomes.

This report, which examines in detail districts with per capita incomes less than $3,000, contains some summary information for districts with per capita incomes greater than $3,000 to facilitate comparisons. The table includes both Regional and National statistics, of which the following is an example:

REGION: MIDWEST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

# ANALYSIS OF STATE, REGION, AND NATIONAL SPECIAL EDUCATION PARTICIPATION BY RACIAL ETHNIC BACKGROUND

00-05% POVERTY

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP<br>EMR OR EMH RATE | RATIO | DEV. | TMR OR TMH RATE | RATIO | DEV. | OTHER SPECIAL EDUC. RATE | RATIO | DEV. | SPECIAL DISABILITY RATE | RATIO | DEV. | TOTAL SPECIAL EDUC. RATE | RATIO | DEV. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL MINORITY | 3.43% | 2.47 | 3.2 | 0.19% | 2.92 | 2.1 | 0.43% | 1.30 | 0.7 | 0.83% | 0.85 | 1.9 | 4.86% | 1.92 | 3.0 |
| AMERICAN INDIAN | 0.0 % | 0.0 | 0.7 | 0.44% | 1.14 | 0.4 | 0.44% | 0.36 | 0.2 | 0.0 % | 0.0 | 0.5 | 0.88% | 0.10 | 0.7 |
| BLACK | 4.53% | 3.66 | 4.6 | 0.21% | 4.03 | 2.7 | 0.76% | 2.40 | 1.0 | 1.18% | 0.65 | 1.0 | 6.68% | 2.84 | 4.2 |
| ASIAN AMERICAN | 0.0 % | 0.0 | 0.6 | 0.0 % | 0.0 | 0.4 | 0.0 % | 0.0 | 0.3 | 0.0 % | 0.0 | 0.9 | 0.0 % | 0.0 | 1.1 |
| SPANISH SURNAME | 2.56% | 1.11 | 1.1 | 0.16% | 2.27 | 0.9 | 0.0 % | 0.0 | 0.5 | 0.52% | 2.03 | 2.7 | 3.22% | 1.13 | 1.2 |
| OTHER | 1.55% | 0.58 | 3.2 | 0.11% | 0.36 | 2.1 | 0.39% | 0.82 | 0.7 | 0.42% | 0.80 | 1.9 | 2.47% | 0.67 | 3.0 |
| TOTAL | 1.87% | 0.0 | 0.0 | 0.13% | 0.0 | 0.0 | 0.40% | 0.0 | 0.0 | 0.49% | 0.0 | 0.0 | 2.89% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 562. | | | 38. | | | 119. | | | 147. | | | 866. | |

## II. Sample Report Description:

The source for this table's data is the OCR/SDELM file. The example given below exemplifies the information contained in this analysis:

- 4.86% of minority pupils and 2.47% of non-minority pupils participate in Special Education programs in the Midwest's districts which have average per capita incomes under $3,000 but have almost no families (0-5%) beneath the poverty level.

## III. General Observations:

Nationally, participation in Special Education increases as the percentage of people living below poverty level increases in districts with per capita incomes less than $3,000. This rise in participation is concentrated in the EMR and Other programs; in fact, participation rates in Special Disability programs fall as poverty increases in districts with low per capita incomes.

Regionally, the Northeast, Midwest, and South follow the National trend of increasing participation accompanying increasing poverty. In the West, no clear relation between these factors emerges.

Nationally, much of the increase in total participation can be traced to the increase in minority participation. Also, minorities participate in overall Special Education at a rate much higher than the corresponding rate for non-minority pupils.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Percentage of People Living Below the Poverty Level in Districts with Per Capita Income Greater than $3,000
Report 3.7

## I. Report Format and Content:

The format and content of this report is precisely that of the preceding report with one exception - this Regional analysis concentrates on districts with high per capita incomes (greater than $3,000) rather than low. Again, districts are grouped according to the percentage of people living below the poverty level with the following percentage ranges specifying the classes: 0% to 5%; 6% to 10%; 11% to 15%; 16% to 25%; and over 25%. The report also includes Regional summary tables for all districts with incomes less than $3,000. The analysis extends to the National level. A sample record is the following:

REGION: MIDWEST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

# ANALYSIS OF STATE, REGION, AND NATIONAL SPECIAL EDUCATION PARTICIPATION BY RACIAL ETHNIC BACKGROUND

00-05% POVERTY

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | TOTAL SPECIAL EDUC. | | |
| | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 2.95% | 3.78 | 9.6 | 0.28% | 1.18 | 1.3 | 1.81% | 2.93 | 9.1 | 0.86% | 1.12 | 2.4 | 5.90% | 2.31 | 9.3 |
| AMERICAN INDIAN | 2.28% | 0.61 | 1.0 | 0.20% | 0.13 | 0.4 | 2.08% | 1.38 | 1.3 | 0.98% | 0.52 | 0.6 | 5.54% | 0.75 | 1.4 |
| BLACK | 3.16% | 4.10 | 9.9 | 0.27% | 1.17 | 1.2 | 1.87% | 3.43 | 9.7 | 0.76% | 1.22 | 2.5 | 6.07% | 2.58 | 9.7 |
| ASIAN AMERICAN | 0.21% | 0.19 | 0.8 | 0.29% | 0.67 | 0.7 | 0.16% | 0.16 | 0.8 | 0.82% | 0.64 | 0.7 | 1.48% | 0.33 | 0.9 |
| SPANISH SURNAME | 1.97% | 1.44 | 1.6 | 0.38% | 1.21 | 1.0 | 1.59% | 1.36 | 1.4 | 1.55% | 1.38 | 1.3 | 5.49% | 1.37 | 1.8 |
| OTHER | 0.97% | 0.37 | 9.5 | 0.27% | 0.98 | 1.3 | 0.73% | 0.64 | 9.1 | 0.87% | 1.19 | 2.4 | 2.84% | 0.54 | 9.3 |
| TOTAL | 1.32% | 0.0 | 0.0 | 0.27% | 0.0 | 0.0 | 0.92% | 0.0 | 0.0 | 0.87% | 0.0 | 0.0 | 3.38% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 8866. | | | 1843. | | | 6198. | | | 5836. | | | 22743. | |

## II. Sample Report Description:

This analysis uses OCR/SDELM file data. The example given below illustrates the type of information which can be garnered from this table:

- 5.90% of minority pupils and 2.84% of non-minority pupils participate in Special Education programs in the Midwest's districts which have average per capita incomes over $3,000 and have very few families (0-5%) below the poverty level.
- Comparing these rates (5.90% Minority and 2.84% Non-Minority) with the rates given in the previous table (4.86% Minority and 2.47% Non-Minority) shows that students of all ethnicities participate more often in Special Education in districts with high per capita incomes and few poverty-stricken families than in districts with low per capita incomes and few poverty-stricken families. The increase is more pronounced in minority rates than in non-minority rates.

## III. General Observations:

Since there are no districts in the country with per capita incomes greater than $3,000 and over 15% of their population living in poverty, detection of trends for this report is difficult. One relation which holds is the following: as the percentage of people living below poverty increases in districts with per capita incomes greater than $3,000, the rate at which minority students participate in Special Education programs (in particular, Special Disability programs) decreases. This trend can be seen on the National level and in the Northeast and South.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Percentage of Total Participation for the District
Report 3.8

I. Report Format and Content:

The general format of this table's entries is consistent with that of entries from the preceding tables (see report 2.3 for detail). In this analysis, districts in each region are grouped according to their total student participation in all Special Education programs. Districts fall into the following categories: 0% to 2% Special Education Participation Rate in the District; 2% to 4%; 4% to 6%; 6% to 10%; 10% to 20%; and over 20%. The national average is approximately 4%. This analysis is conducted on the Regional level with National summary tables for each category included. An example of the data appearing is:

REGION: SOUTH
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

# ANALYSIS OF STATE, REGION, AND NATIONAL SPECIAL EDUCATION PARTICIPATION BY RACIAL ETHNIC BACKGROUND

6.1-10% PARTICIPATION

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP | | | | | | | | | | | | TOTAL SPECIAL EDUC. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | | | |
| | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 4.17% | 4.35 | 13.1 | 0.36% | 1.71 | 2.1 | 3.73% | 3.31 | 13.6 | 2.27% | 1.46 | 4.1 | 10.52% | 2.54 | 14.2 |
| AMERICAN INDIAN | 3.45% | 0.97 | 0.9 | 0.21% | 0.11 | 0.2 | 3.47% | 0.94 | 1.2 | 2.87% | 0.97 | 0.6 | 10.01% | 0.92 | 1.1 |
| BLACK | 4.89% | 4.38 | 13.1 | 0.37% | 2.47 | 2.3 | 3.96% | 3.39 | 13.4 | 2.03% | 1.40 | 3.3 | 11.25% | 2.60 | 13.8 |
| ASIAN AMERICAN | 0.60% | 0.09 | 0.7 | 0.07% | 0.48 | 0.4 | 1.30% | 0.47 | 1.0 | 2.03% | 0.72 | 0.8 | 3.99% | 0.42 | 1.1 |
| SPANISH SURNAME | 1.80% | 0.52 | 1.2 | 0.33% | 0.38 | 0.5 | 2.99% | 1.07 | 1.8 | 3.04% | 1.05 | 2.0 | 8.17% | 0.84 | 1.9 |
| OTHER | 1.17% | 0.31 | 13.1 | 0.22% | 0.74 | 2.1 | 1.82% | 0.51 | 13.6 | 2.18% | 0.81 | 4.1 | 5.39% | 0.48 | 14.2 |
| TOTAL | 2.37% | 0.0 | 0.0 | 0.27% | 0.0 | 0.0 | 2.58% | 0.0 | 0.0 | 2.22% | 0.0 | 0.0 | 7.44% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 35662. | | | 4102. | | | 38891. | | | 33379. | | | 112034. | |

## II. Sample Report Description:

This analysis utilizes data from the OCR/SDELM file. The following examples typify the types of information available from this table:

- 10.52% is the average rate at which minority pupils participate in Special Education in those districts in the South which have total participation rates in the range 6.1% to 10%.
- 7.44% is the total participation rate for all Special Education programs in these districts of the South. As expected the total participation average for all districts in the South (7.44%) with total participation rates between 6.1% and 10% falls somewhere between the two extremes.

## III. General Observations:

Obviously, as the percentage of students participating in Special Education in a district increases, participation in each of the programs will increase. However, contrasting how rapidly each of the rates increases reveals the aspect of Special Education which produces large participation rates - Other programs.

In all cases, TMR participation increases very slowly - indicating pupils in most districts participate in TMR at the same rate, regardless of the size of other special education programs. For minority, non-minority, and total enrollments, participation in EMR and Special Disability programs rises relatively slowly. For minority pupils, EMR participation is greater than Special Disability participation; for non-minority students, the opposite holds - participation in Special Disability programs is above that in EMR.

The most remarkable result of this report is the following: in districts with high participation in Special Education programs, participation in other programs accounts for most of the total participation. In other words, the only way a district can have 15% of its students involved in Special Education is if 12 % of all students are enrolled in Other programs. This correspondence suggests that, in some way, the criteria for placing a pupil in Other programs is less rigid than for the other aspects of Special Education and can, in some instances, lead to Special Education participation rates which are well above the National average.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on State Revenue as a Percentage of Total School Revenue
Report 3.9

## I. Report Format and Content:

With a general format consistent with the previous tables (see report 2.3 for detail) this analysis examines the role of state involvement in education. Both the Regional and National levels are considered. In each instance, an area's districts are divided into the following six categories: districts whose State revenue comprises 0% to 20%, 21% to 30%, 31% to 40%, 41% to 50%, 51% to 60%, and over 60% of their total school revenue. The national average for this statistic is 39%. Some typical records from this table appear below:

REGION: NORTHEAST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

51-60% STATE REVENUE

| | TYPE HANDICAP | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | TOTAL SPECIAL EDUC. | | |
| RACIAL ETHNIC BACKGROUND | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 3.65% | 2.67 | 12.1 | 0.42% | 1.21 | 1.0 | 1.86% | 2.40 | 9.1 | 0.47% | 1.03 | 5.6 | 0.39% | 2.03 | 11.5 |
| AMERICAN INDIAN | 2.57% | 1.59 | 0.7 | 1.03% | 1.96 | 1.9 | 0.86% | 0.45 | 0.8 | 0.51% | 0.42 | 0.3 | 4.97% | 1.13 | 0.4 |
| BLACK | 3.76% | 2.65 | 12.2 | 0.41% | 1.19 | 0.6 | 1.65% | 1.84 | 5.6 | 0.46% | 0.98 | 5.3 | 6.28% | 1.91 | 9.9 |
| ASIAN AMERICAN | 1.46% | 0.69 | 0.6 | 0.0 % | 0.0 | 0.5 | 0.0 % | 0.0 | 0.9 | 1.94% | 3.39 | 1.8 | 3.40% | 0.90 | 1.3 |
| SPANISH SURNAME | 2.56% | 3.31 | 1.1 | 0.43% | 0.99 | 0.7 | 5.04% | 3.45 | 10.6 | 0.47% | 0.31 | 2.0 | 8.50% | 3.62 | 5.8 |
| OTHER | 1.46% | 0.42 | 12.1 | 0.25% | 0.85 | 1.0 | 0.72% | 0.44 | 9.1 | 0.79% | 1.56 | 5.6 | 3.21% | 0.53 | 11.5 |
| TOTAL | 2.13% | 0.0 | 0.0 | 0.30% | 0.0 | 0.0 | 1.07% | 0.0 | 0.0 | 0.69% | 0.0 | 0.0 | 4.19% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 2422. | | | 370. | | | 1311. | | | 851. | | | 5154. | |

## II. Sample Report Description:

The example given below characterizes how the data in this table - taken from the OCR/SDELM file - can be interpreted:

- 6.39% of all minority pupils and 3.21% of all non-minority pupils participate in Special Education programs in those districts in the Northeast which have 51% to 60% of the total school revenue coming from their state.

## III. General Observations:

As the percentage of a district's revenue coming from the state government increases, so does participation in Special Education programs. This trend is particularly apparent for minority students' participation. Also, pupils' participation in EMR programs and, to a lesser extent, in Other programs seems to be the key factor in the overall increase in participation.

The behavior of Special Education participation as the percentage of districts' income coming from the state increases shows marked disparity from Region to Region. In the Northeast and Midwest, participation in Special Education decreases as the share of a district's revenue coming from the state increases, while in the South and in the West there is an increase in participation.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Title I Awards Money as a Percentage of the Total Federal Award Money
Report 3.10

## I. Report Format and Content:

This table, using the format established in previous tables (see report 2.3 for detail), concentrates on the relation of Title I awards to Regional and National Participation rates. Districts in each area fall into the following classifications: districts whose title I funding constitutes 0% to 15%, 16% to 30%, 31% to 45%, 46% to 60%, 61% to 75%, and over 75% of their total Federal funding. This analysis is extended to the National level. Typical data from this table is:

REGION: WEST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

# ANALYSIS OF STATE, REGION, AND NATIONAL
# SPECIAL EDUCATION PARTICIPATION
# BY RACIAL ETHNIC BACKGROUND

00-15% TITLE I MONEY

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP: EMR OR EMH RATE | EMR OR EMH RATIO | EMR OR EMH DEV. | TMR OR TMH RATE | TMR OR TMH RATIO | TMR OR TMH DEV. | OTHER SPECIAL EDUC. RATE | OTHER SPECIAL EDUC. RATIO | OTHER SPECIAL EDUC. DEV. | SPECIAL DISABILITY RATE | SPECIAL DISABILITY RATIO | SPECIAL DISABILITY DEV. | TOTAL SPECIAL EDUC. RATE | TOTAL SPECIAL EDUC. RATIO | TOTAL SPECIAL EDUC. DEV. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL MINORITY | 1.53% | 2.34 | 2.5 | 0.24% | 1.81 | 2.3 | 1.38% | 1.45 | 3.3 | 1.54% | 1.56 | 4.9 | 4.69% | 1.68 | 6.3 |
| AMERICAN INDIAN | 1.41% | 1.77 | 1.7 | 0.34% | 1.26 | 1.5 | 2.68% | 1.26 | 1.6 | 1.06% | 1.07 | 0.9 | 5.49% | 1.30 | 1.6 |
| BLACK | 2.49% | 3.15 | 2.8 | 0.24% | 1.71 | 1.1 | 1.01% | 1.47 | 1.7 | 1.24% | 1.75 | 1.8 | 4.99% | 1.97 | 4.1 |
| ASIAN AMERICAN | 0.40% | 0.53 | 1.4 | 0.13% | 0.78 | 0.8 | 0.77% | 0.67 | 1.9 | 1.42% | 0.90 | 2.0 | 2.73% | 0.71 | 1.9 |
| SPANISH SURNAME | 1.34% | 1.66 | 2.1 | 0.24% | 1.49 | 1.6 | 1.43% | 1.48 | 2.8 | 1.81% | 1.58 | 4.7 | 4.81% | 1.51 | 4.3 |
| OTHER | 0.74% | 0.81 | 2.5 | 0.18% | 0.84 | 2.3 | 1.10% | 0.94 | 3.3 | 1.17% | 0.83 | 4.9 | 3.19% | 0.71 | 6.3 |
| TOTAL | 0.90% | 0.0 | 0.0 | 0.19% | 0.0 | 0.0 | 1.15% | 0.0 | 0.0 | 1.24% | 0.0 | 0.0 | 3.48% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 8120. | | | 1734. | | | 10457. | | | 11277. | | | 31588. | |

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## II. Sample Report Description:

This table is based on the OCR/SDELM file. The example furnished below demonstrates the types of information contained in this table:

- 1.38% is the rate at which minority students participate in Other Special Education programs in districts in the West whose Title I funding is a small percent (0% to 15%) of their total Federal Award money.

## III. General Observations:

In general, as the percentage of a district's Federal income coming from Title I Award money increases, there is a corresponding rise in participation in Special Education. This trend, apparent for the participation of districts' total enrollment, occurs primarily in minority students' participation. The participation rates of non-minority pupils in special education (lower than the rates for minority students) do not seem to be affected by a districts' share of Federal revenue coming from Title I Awards.

Regionally, this trend holds in the South and Midwest. In the Northeast and West, participation in Special Education fluctuates as the impact of Title I money on a district's revenue increases.

The overall increase in Special Education participation can be attributed to the sensitivity of participation in EMR and Other programs to Title I Revenues. Enrollment rates in TMR do not vary much as Title I Award money becomes a bigger percentage of a district's Federal revenue while participation in Special Disability programs decreases.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on the Percentage of Per Capita Income Spent on the Average Pupil Expenditure
Report 3.11

## I. Report Format and Content:

Using the same general format of the reports in this section (see report 2.3 for detail), this analysis centers on the Burden Rate - per pupil expenditures divided by per capita income. If the Burden Rate for a district is high, the average family in that district contributes a relatively large share of its income to the district's educational system. The purpose of this analysis is to detect any trends which link Burden Rate with Special Education participation. The analysis is carried out for the four Regions and for the Nation as a whole. A typical report in this table is presented below:

REGION: SOUTH
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

31-40% BURDEN

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP | | | | | | | | | | | | TOTAL SPECIAL EDUC. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | | | |
| | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 3.87% | 4.90 | 7.2 | 0.31% | 1.69 | 2.7 | 2.13% | 1.56 | 5.2 | 0.62% | 1.37 | 2.1 | 6.92% | 2.41 | 6.6 |
| AMERICAN INDIAN | 6.51% | 0.67 | 0.4 | 0.18% | 0.04 | 0.2 | 4.37% | 0.51 | 0.5 | 0.53% | 0.16 | 0.2 | 11.59% | 0.53 | 0.5 |
| BLACK | 4.25% | 4.58 | 7.1 | 0.33% | 1.65 | 2.6 | 2.38% | 1.55 | 5.1 | 0.66% | 1.44 | 2.2 | 7.61% | 2.35 | 6.4 |
| ASIAN AMERICAN | 2.33% | 0.00 | 0.1 | 0.0 % | 0.0 | 0.0 | 0.0 % | 0.0 | 0.4 | 0.26% | 0.47 | 0.1 | 2.58% | 0.05 | 0.3 |
| SPANISH SURNAME | 1.12% | 0.29 | 0.4 | 0.22% | 0.11 | 0.3 | 0.32% | 0.52 | 0.4 | 0.31% | 1.33 | 0.5 | 1.98% | 0.47 | 0.5 |
| OTHER | 1.14% | 0.33 | 7.2 | 0.12% | 0.63 | 2.7 | 2.81% | 0.57 | 5.2 | 0.56% | 1.64 | 2.1 | 4.63% | 0.48 | 6.6 |
| TOTAL | 2.67% | 0.0 | 0.0 | 0.23% | 0.0 | 0.0 | 2.43% | 0.0 | 0.0 | 0.59% | 0.0 | 0.0 | 5.92% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 12313. | | | 1060. | | | 11188. | | | 2725. | | | 27286. | |

## II. Sample Report Description:

Data in this table, taken from the OCR/SDELM file, can be interpreted in this fashion:

- 3.87% of minority students and 1.14% of non-minority students participate in EMR or EMH programs in districts in the South which have Burden Rates of 31% to 40%. A Burden Rate of 31% to 40% for a district means that if a family of four had a per capita (per person) income of $2,500 ($10,000 in all for the whole family), then $3,100 to $4,000 of this income is devoted to pupil expenditures.

## III. General Observations:

No clear trends emerge in participation in the overall Special Education programs as the percent Burden (average per pupil expenditures divided by per capita income) increases in districts. Almost all of the rates for the various programs either fluctuate widely or show little change at all - in either case, we must conclude the Burden percentage does not have considerable effect on Special Education participation.

Participation in one aspect of Speciation Education, EMR, does increase in most Regions as the Burden percentage increases. Also, on the National level, participation in Special Disability programs falls off as the average family in a district contributes a bigger share of its income to pupil expenditures.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Average Years of Schooling Completed by a District's Adults
Report 3.12

1. Report Format and Content:

Using the general format of previous tables (see report 2.3 for detail), this analysis attempts to detect trends in Special Education participation which may be attributed to the educational background of a district's adults. Districts are grouped into the following categories: districts whose adults have had, on the average, less than a high school education, one to three years of high school, four years of high school, and one or more years of college. The analysis is carried out on the Regional and National level. An example from this table is the following:

REGION: WEST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

1-3 YEARS HIGH SCHOOL

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP | | | | | | | | | | | | TOTAL SPECIAL EDUC. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | | | |
| | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 1.64% | 2.16 | 2.2 | 0.23% | 1.16 | 0.9 | 1.01% | 3.30 | 3.2 | 0.38% | 0.97 | 2.2 | 3.26% | 3.48 | 2.8 |
| AMERICAN INDIAN | 1.35% | 1.29 | 1.2 | 0.21% | 2.25 | 1.0 | 1.84% | 0.84 | 2.3 | 0.25% | 0.64 | 1.0 | 3.65% | 3.19 | 1.7 |
| BLACK | 2.56% | 1.58 | 1.7 | 0.41% | 1.73 | 0.7 | 0.42% | 2.39 | 1.7 | 0.73% | 1.63 | 1.2 | 4.11% | 1.76 | 2.0 |
| ASIAN AMERICAN | 0.60% | 0.56 | 0.7 | 0.20% | 2.56 | 0.6 | 0.60% | 0.11 | 0.3 | 0.30% | 3.09 | 0.9 | 1.71% | 0.88 | 0.8 |
| SPANISH SURNAME | 1.62% | 1.31 | 1.4 | 0.22% | 1.23 | 0.5 | 0.83% | 2.38 | 1.6 | 0.37% | 0.80 | 2.3 | 3.05% | 1.16 | 1.9 |
| OTHER | 1.08% | 0.65 | 2.2 | 0.14% | 0.87 | 0.9 | 0.47% | 0.72 | 3.2 | 0.46% | 1.32 | 2.2 | 2.16% | 0.72 | 2.3 |
| TOTAL | 1.43% | 0.0 | 0.0 | 0.20% | 0.0 | 0.0 | 0.82% | 0.0 | 0.0 | 0.41% | 0.0 | 0.0 | 2.86% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 2288. | | | 318. | | | 1303. | | | 651. | | | 4560. | |

## II. Sample Report Description:

This report is based on the OCR/SDELM file. An example of its information content is given below:

- 1.64% of all minority students living in districts in the West whose average adult education lies between one and three years of high school participate in either EMR or EMH programs.

## III. General Observations:

Participation in all aspects of Special Education, except for Special Disabilities, decreases as the average education of a school district's adults increases. Nationally, 5.11% of all students participate in Special Education in districts whose average adult has one to three years of high school while just 2.62% of the students participate in Special Education in districts whose adults have had, on the average, one or more years of college.

For both minority and non-minority students, the likelihood of being in EMR, TMR, or Other programs drops substantially as the average education of a district's adults increases. In contrast, participation in Special Disability programs increases as the educational level of a district's adults increases.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on EMR Enrollment as a Percentage of Special Education Enrollment
Report 3.13

## I. Report Format and Content:

Following the established format (see Report 2.3 for detail), this analysis attempts to discern trends in districts' Special Education participation as the EMR program plays a bigger and bigger role in the overall Special Education program. Districts are classified into six categories: those whose EMR programs constitute 0% to 15%, 16% to 30%, 31% to 45%, 46% to 60%, 61% to 75%, and over 75% of the total Special Education program. This analysis is carried out on both the Regional and the National level. The following is an example of entries found in this table:

REGION: NORTHEAST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

61-75% EMR SPECIAL ED

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP | | | | | | | | | | | | TOTAL SPECIAL EDUC. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EMR OR EMH | | | TMR OR TMH | | | OTHER SPECIAL EDUC. | | | SPECIAL DISABILITY | | | | | |
| | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. | RATE | RATIO | DEV. |
| TOTAL MINORITY | 2.94% | 2.76 | 7.4 | 0.33% | 0.85 | 2.8 | 0.48% | 2.47 | 2.7 | 0.26% | 1.83 | 2.4 | 4.01% | 2.21 | 6.7 |
| AMERICAN INDIAN | 1.03% | 0.07 | 0.4 | 0.0 % | 0.0 | 0.2 | 0.69% | 0.26 | 0.3 | 0.0 % | 0.0 | 0.1 | 1.72% | 0.08 | 0.4 |
| BLACK | 3.30% | 3.02 | 7.7 | 0.34% | 0.93 | 2.5 | 0.55% | 2.61 | 2.7 | 0.22% | 1.39 | 2.1 | 4.42% | 2.41 | 6.9 |
| ASIAN AMERICAN | 0.63% | 0.27 | 0.6 | 0.16% | 0.84 | 0.6 | 0.16% | 0.38 | 0.5 | 0.0 % | 0.0 | 0.3 | 0.94% | 0.32 | 0.8 |
| SPANISH SURNAME | 1.98% | 1.14 | 2.0 | 0.29% | 0.82 | 0.9 | 0.30% | 1.16 | 1.2 | 0.37% | 2.86 | 1.9 | 2.94% | 1.19 | 2.1 |
| OTHER | 1.31% | 0.41 | 7.4 | 0.29% | 1.78 | 2.8 | 0.25% | 0.53 | 2.7 | 0.22% | 1.10 | 2.4 | 2.07% | 0.51 | 6.7 |
| TOTAL | 1.85% | 0.0 | 0.0 | 0.31% | 0.0 | 0.0 | 0.33% | 0.0 | 0.0 | 0.23% | 0.0 | 0.0 | 2.76% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 4217. | | | 683. | | | 746. | | | 515. | | | 6161. | |

## II. Sample Report Description:

This data is based on the OCR/SDELM file; an example of the type of information it contains is the following:

- 7.4 is the number of standard deviations separating the actual minority participation in EMR and the participation which would be expected if the racial distribution in EMR reflected the racial distribution in districts in the Northeast with 61% to 75% of their Special Education program devoted to EMR or EMH. A high number of standard deviations signals an ethnic imbalance in the EMR program.

## III. General Observations:

The most surprising result of this report is that as EMR participation assumes a bigger and bigger share of a district's Special Education program, the size of that district's total Special Education program becomes smaller. In other words, district's with big Special Education programs tend to devote a small part of it to EMR. On the other hand, when EMR participation is over 75% of the total participation in a program, the program tends to be smaller than the National average. This trend occurs for minority, non-minority, and total enrollments' participation.

Also, as expected, when a bigger share of a Special Education program is EMR-oriented, then the shares of TMR, Special Disability, and Other programs in the total Special Education program decrease.

REPORT TITLE: Analysis of Regional and National Special Education Participation by Ethnic Background Focusing on Other Programs Enrollment as a Percentage of Special Education Enrollment

Report 3.14

## I. Report Format and Content:

Using the format of previous tables (see report 2.3 for detail), this report looks for trends in districts' Special Education participation as the Other programs share in the total program increases. Districts are classified into one of six groups: those whose Other programs constitute 0% to 15%, 16% to 30%, 31% to 45%, 46% to 60%, 61% to 75%, and over 75% of the overall Special Education program. National summary tables are also included. A sample entry is the following:

REGION: MIDWEST
STATE : SUMMARY
TABLE 1.5 - DATA: OCR

ANALYSIS OF STATE, REGION, AND NATIONAL
SPECIAL EDUCATION PARTICIPATION
BY RACIAL ETHNIC BACKGROUND

46-60% OTHER SPECIAL ED

| RACIAL ETHNIC BACKGROUND | TYPE HANDICAP<br>EMR OR EMH RATE | RATIO | DEV. | TMR OR TMH RATE | RATIO | DEV. | OTHER SPECIAL EDUC. RATE | RATIO | DEV. | SPECIAL DISABILITY RATE | RATIO | DEV. | TOTAL SPECIAL EDUC. RATE | RATIO | DEV. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL MINORITY | 3.24% | 4.42 | 7.5 | 0.07% | 1.25 | 0.4 | 5.95% | 2.20 | 6.9 | 1.01% | 0.81 | 2.7 | 10.28% | 2.13 | 9.3 |
| AMERICAN INDIAN | 0.82% | 2.26 | 0.9 | 0.0 % | 0.0 | 0.1 | 1.46% | 1.23 | 0.7 | 0.38% | 6.39 | 1.2 | 2.66% | 2.52 | 1.1 |
| BLACK | 3.69% | 4.57 | 7.7 | 0.08% | 1.10 | 0.2 | 6.97% | 2.40 | 7.6 | 1.00% | 0.73 | 2.4 | 11.74% | 2.16 | 9.9 |
| ASIAN AMERICAN | 0.21% | 0.73 | 0.9 | 0.21% | 2.18 | 0.9 | 0.21% | 0.03 | 1.1 | 2.91% | 2.49 | 1.4 | 3.53% | 0.69 | 0.6 |
| SPANISH SURNAME | 2.52% | 0.38 | 0.6 | 0.06% | 2.44 | 0.7 | 2.98% | 1.26 | 1.0 | 1.10% | 0.75 | 0.7 | 6.67% | 0.95 | 0.8 |
| OTHER | 1.03% | 0.43 | 7.5 | 0.08% | 0.86 | 0.4 | 3.10% | 0.67 | 6.9 | 1.44% | 2.44 | 2.7 | 5.65% | 0.70 | 9.3 |
| TOTAL | 1.57% | 0.0 | 0.0 | 0.08% | 0.0 | 0.0 | 3.80% | 0.0 | 0.0 | 1.33% | 0.0 | 0.0 | 6.79% | 0.0 | 0.0 |
| ENROLLMENT COUNT | | 1148. | | | 59. | | | 2771. | | | 971. | | | 4949. | |

## II. Sample Report Description:

This data is derived from the OCR/SDELM file. An illustration of the type of information accessible through this table is provided below:

- 10.28% of all minority pupils participate in Special Education programs in districts of the Midwest in which 46% to 60% of the total Special Education program consists of Other programs.

## III. General Observations:

This report, in conjunction with the previous report, underscores a basic difference between the roles of EMR and Other programs in determining the total sizes of districts' Special Education programs. As participation in Other programs comprises a bigger part of the total participation in a district's Special Education program, that district's program tends to be large relative to the National average. Just the opposite trend holds for EMR participation: if most of the participation in a district's Special Education program is in EMR, that district generally has a relatively small Special Education. Such contrasting trends for these two aspects of Special Education indicate that participation in Other programs, not in EMR is capable of producing abnormally large Special Education programs. Furthermore, it appears that all districts do not apply the same criteria for placing students in Other programs - since of all aspects of Special Education, only Other programs' participation takes on such a broad range of values.

# COMPARATIVE ANALYSIS OF DISTRICTS' SPECIAL EDUCATION PARTICIPATION AND SOCIO-ECONOMIC CHARACTERISTICS

REPORT TITLE: Analysis of Special Education Rates for Regions, States, and Districts
Report 4

## I. Report Format and Content:

Report 4 focuses on Special Education participation rates on the district level. Additional socio-economic data, obtained from OCR/SDELM survey information, is included. For each district covered by the survey, Report 4 presents the following characteristics: percentage of students involved in Special Education; percentage of population below the poverty level; percentage of population inhabiting urban areas; average property value per capita; average income per capita; and district enrollment and population. The analysis is extended to the state, region, and nation. In addition, all district figures are related to state, regional, and national averages. Similarly, state characteristics are related to regional and national traits; regional averages are compared to national averages. Districts are grouped by state and listed in order of decreasing percentage of Special Education participation. This report also contains an adjoint table to Report 4 (see the following table) which treats the districts included in the 1973 OCR survey but not in the HEW/SDELM file. In addition, Report 4 has been compiled for districts which have over 75% of the Special Education enrollment in Other programs. The purpose of this version of Report 4 is to determine the socio-economic characteristics of districts which have, in general, less stringent admission criteria for Other programs.

A sample entry from Report 4 is the following:

STATE: UTAH
REGION: WEST
TABLE 5.3
APR 14, 1975

### ANALYSIS OF SPECIAL EDUCATION PARTICIPATION RATES
### FOR REGIONS, STATES
### AND DISTRICTS (ORDERED BY PARTICIPATION RATE)

PAGE 182
HEW/OASPE
DATA:
OCR/SDELM

| ANALYSIS CATEGORY | % SPEC ED. PARTICIP. | % BELOW POVERTY | % URBAN POPULATION | AVERAGE PER DISTRICT | | | | # DISTRICT |
|---|---|---|---|---|---|---|---|---|
| | | | | PROPERTY | INCOME | ENROLLMENT | POPULATION | |
| UTAH | 7.78% | 4.60% | 39.49% | 11242. | 2963. | 14761. | 59864. | 5. |
| RELATIVE TO NATION | 142.48% | 73.94% | 102.44% | 178.40% | 94.01% | 107.68% | 84.91% | 0.39% |
| RELATIVE TO REGION | 245.61% | 100.82% | 95.69% | 309.22% | 85.70% | 121.51% | 90.77% | 1.61% |
| TOOELE COUNTY | 15.81% | 5.13% | 71.80% | 7600. | 2814. | 6533. | 21545. | 1. |
| RELATIVE TO NATION | 391.27% | 44.15% | 82.19% | 120.61% | 89.30% | 47.66% | 30.56% | 0.06% |
| RELATIVE TO REGION | 499.27% | 60.15% | 76.78% | 209.05% | 81.40% | 53.78% | 32.67% | 0.27% |
| RELATIVE TO STATE | 203.27% | 59.66% | 80.23% | 67.61% | 94.99% | 44.26% | 35.99% | 16.67% |
| CARBON COUNTY | 12.04% | 9.37% | 39.74% | 9686. | 2439. | 4046. | 15647. | 1. |
| RELATIVE TO NATION | 297.85% | 80.64% | 45.49% | 153.71% | 77.40% | 29.52% | 22.19% | 0.06% |
| RELATIVE TO REGION | 380.06% | 109.89% | 42.49% | 266.42% | 70.56% | 33.31% | 23.72% | 0.27% |
| RELATIVE TO STATE | 154.74% | 108.99% | 44.40% | 86.16% | 82.33% | 27.41% | 26.14% | 16.67% |
| OGDEN CITY SCHOOL | 10.36% | 8.72% | 99.75% | 6012. | 2974. | 14561. | 69327. | 1. |
| RELATIVE TO NATION | 256.27% | 75.04% | 114.18% | 95.41% | 94.39% | 106.22% | 98.33% | 0.06% |
| RELATIVE TO REGION | 327.00% | 102.25% | 106.66% | 165.37% | 86.04% | 119.86% | 105.11% | 0.27% |
| RELATIVE TO STATE | 133.14% | 101.42% | 111.46% | 53.48% | 100.40% | 98.65% | 115.81% | 16.67% |
| JORDAN SCHOOL DISTRICT | 7.45% | 6.90% | 79.33% | 22038. | 2484. | 29877. | 64687. | 1. |
| RELATIVE TO NATION | 184.28% | 59.37% | 90.81% | 349.72% | 78.81% | 217.95% | 91.75% | 0.06% |
| RELATIVE TO REGION | 235.15% | 80.90% | 84.83% | 606.15% | 71.85% | 245.95% | 98.08% | 0.27% |
| RELATIVE TO STATE | 95.74% | 80.24% | 88.65% | 196.03% | 83.84% | 202.41% | 108.06% | 16.67% |
| SALT LAKE CITY | 5.22% | 8.98% | 100.04% | 9664. | 3252. | 29082. | 175314. | 1. |
| RELATIVE TO NATION | 129.25% | 77.27% | 114.50% | 153.35% | 103.20% | 212.15% | 248.65% | 0.06% |
| RELATIVE TO REGION | 164.92% | 105.24% | 106.96% | 265.80% | 94.08% | 239.40% | 265.81% | 0.27% |
| RELATIVE TO STATE | 67.15% | 104.43% | 111.78% | 85.96% | 109.77% | 197.03% | 292.85% | 16.67% |
| UINTAH SCHOOL DISTRICT | 2.62% | 16.28% | 30.86% | 14699. | 2235. | 4464. | 12663. | 1. |
| RELATIVE TO NATION | 64.86% | 140.04% | 35.32% | 233.25% | 70.91% | 32.57% | 17.96% | 0.06% |
| RELATIVE TO REGION | 82.76% | 190.89% | 33.00% | 404.29% | 64.64% | 36.75% | 19.20% | 0.27% |
| RELATIVE TO STATE | 33.69% | 189.34% | 34.48% | 130.75% | 75.43% | 30.24% | 21.15% | 16.67% |

## II. Sample Report Description:

This analysis is based on the OCR/SDELM file. The following examples illustrate types of information contained in Report 4:

- 15.81% of Tooele County's student enrollment participate in Special Education. This figure is 203.27% relative to the state's rate, which means the participation rate for Special Education in Tooele County is a little over twice as high as the rate for the state of Utah (15.81% as opposed to 7.78%). When interpreting a Relative to State (or Region or Nation) percentage, it is helpful to keep in mind that a percentage greater than 100% means that the rate being considered is higher than the state (or Regional or National) average rate.
- Participation in Tooele County is 499.27% relative to the Region, which means the percentage of students in Special Education in Tooele County is nearly five times as high as the corresponding percentage figure in the West Region.
- Similarly, Utah's participation rate of 7.78% is almost twice that of the region, as indicated by the 192.48% Relative to Nation figure.
- Tooele County's Special Education participation rate is computed to be 391.27% relative to the Nation, indicating that students in Tooele County participate in Special Education at a greater rate than they do in the Nation as a whole. Specifically, the average child in Tooele County is approximately four times as likely (3.9127 times as likely) to be enrolled in a Special Education program as the average child in the Nation.
- Socio-economic data can be interpreted with the same method. For example, 89.49% of Utah's population live in urban regions. The other states in the West (Utah's region) tend toward slightly more urbanized populations. Utah's percentage of urban population is 95.69% relative to the region - a percentage less than 100% means the rate is lower in Utah than in the Region.
- 6,533, Tooele County school district's enrollment, is well below the average district enrollment for Utah, the West, and the nation. For example, an enrollment of 6,533 is only 53.78% of the enrollment for the average district in the West.

## III. General Observations:

Based on districts contained in the OCR/SDELM file, 4.04% of the nation's students participate in Special Education. The Northeast and West have participation rates below the national level and the South and Midwest are above the National average.

The South, with the highest participation rate, also has the highest number of people living below poverty, the smallest percentage of people living in urban areas, and the smallest average per capita income. The West, which has the lowest participation rate, has the smallest percentage of people below poverty and the highest per capita income among the districts.

REPORT TITLE: Analysis of Special Education Rates for Regions, States, and Districts
Report 4.1 (non-SDELM districts)

## I. Report Format and Content:

The format of this table exactly follows the format of the preceding table. However, this table is based on districts not included in the HEW SDELM file but included in the 1973 OCR Survey so its content differs from the preceding table. None of the socio-economic data is available for the districts included in this table. An entry of 0.0 in this table indicates the data is not at hand.

# MISCELLANEOUS REPORTS

REPORT TITLE: OCR/SDELM Data for Districts Listed by Size
Report 5.1

I. Report Format and Content:

Report 5.1, which ranks school districts by their size, provides the following information about each district: enrollment; percentage of students participating in special education; the number of students attending school in the district but residing elsewhere (Non Resid.); and the number of students attending school outside of their home district (Resid. Out). The following is a typical entry from this table.

LIST OF DISTRICTS BY SIZE
DATA: OCR/SDELM

| DIST RANK | ENROLLMENT | % SPEC. ED | NON RESID. | RESID. OUT | NAME | STATE | OE CODE |
|---|---|---|---|---|---|---|---|
| 52 | 60703 | 4.10% | 0 | 0 | OAKLAND CITY UNIFIED | CALIFORNIA | 1428050 |
| 53 | 60502 | 3.02% | 131 | 20 | OMAHA PUBLIC SCHOOLS | NEBRASKA | 3774820 |
| 54 | 60282 | 4.38% | 13 | 5 | BREVARD COUNTY | FLORIDA | 1900150 |
| 55 | 59911 | 3.76% | 133 | 308 | TOLEDO PUBLIC SCHOOLS | OHIO | 4504490 |
| 56 | 58833 | 8.44% | 584 | 140 | MINNEAPOLIS PUBLIC SCHOOLS | MINNESOTA | 3321240 |
| 57 | 58806 | 4.37% | 0 | 0 | POLK COUNTY | FLORIDA | 1901590 |
| 58 | 58332 | 3.13% | 66 | 89 | AUSTIN INDEP SCH DIST | TEXAS | 5308940 |
| 59 | 56558 | 4.99% | 0 | 0 | GREENVILLE COUNTY | SOUTH CAROLINA | 5002310 |
| 60 | 55431 | 3.00% | 13 | 0 | WICHITA UNIFIED 259 | KANSAS | 2612990 |
| 61 | 54758 | 0.0 % | 0 | 0 | FRESNO CITY UNIFIED | CALIFORNIA | 1414550 |
| 62 | 54635 | 10.00% | 0 | 83 | CHARLESTON COUNTY SCHOOL DIS | SOUTH CAROLINA | 5001440 |
| 63 | 54512 | 1.86% | 0 | 52 | BIRMINGHAM CITY | ALABAMA | 1000390 |
| 64 | 54041 | 8.57% | 371 | 283 | OKLAHOMA CITY | OKLAHOMA | 4622770 |
| 65 | 53255 | 3.16% | 133 | 78 | SAN JUAN UNIFIED | CALIFORNIA | 1434620 |
| 66 | 53226 | 2.10% | 83 | 20 | JEFFERSON COUNTY | ALABAMA | 1001910 |
| 67 | 51920 | 1.87% | 0 | 14 | VIRGINIA BEACH CITY SCHOOLS | VIRGINIA | 5603840 |
| 68 | 51521 | 2.53% | 152 | 160 | AKRON CITY SCHOOL DISTRICT | OHIO | 4504348 |

## II. Sample Report Description:

This report is based on the OCR/SDELM file. The information discussed below about the Omaha district represents the types of knowledge which can be gained from this table about school districts:

- 60502 pupils, the enrollment of Omaha Public Schools, make this district the 53rd largest school district surveyed.
- 3.02% of these 60,502 students (1,827 students) are involved in special education.
- 131 students attend school in the Omaha Public School district while residing in neighboring districts.
- 20 pupils who reside in the Omaha district attend school elsewhere.

## III. General Observations:

Report 5.1 demonstrates the substantial variance in participation rates from district to district. For example, among the top ten districts in enrollment sizes, participations vary from 2.26% to 5.90% of the students. As smaller districts are examined, participation rates fluctuate between rates as high as 67.30% and as low as 0%.

REPORT TITLE: Analysis of Resident and Special School Enrollment
Report 5.2

## I. Report Format and Content:

Report 5.2 analyzes two different aspects of state school enrollment. The first regards resident children not in school. Report 5.2 gives the total number of children in each state who fall into this classification. This number is also expressed as a percentage of the state's total school-age population. The second aspect involves a state's special school enrollment. The total number of students attending special schools and the percentage of special education students attending special schools are given for each state. In Report 5.2 states are presented in alphabetical sequence. A sample of the records in this table appears below:

APR 23, 1975
TABLE 1.4

## ANALYSIS OF RESIDENT AND SPECIAL SCHOOL ENROLLMENT

PAGE 1
HEW/OASPE

| AREA | RESIDENT CHILDREN NOT IN SCHOOL | | SPECIAL SCHOOL ENROLLMENT | |
|---|---|---|---|---|
| | TOTAL | PERCENT OF TOTAL ENROLLMENT | TOTAL | PERCENT OF SPECIAL EDUCATION ENROLLMENT |
| ALABAMA | 23334. | 3.04% | 1823. | 5.57% |
| ALASKA | 650. | 0.87% | 168. | 6.14% |
| ARIZONA | 7199. | 2.22% | 946. | 11.95% |
| ARKANSAS | 7946. | 2.92% | 387. | 2.87% |
| CALIFORNIA | 12648. | 0.37% | 10606. | 9.99% |
| COLORADO | 2262. | 0.66% | 507. | 4.12% |
| CONNECTICUT | 1874. | 0.94% | 702. | 7.64% |
| DELAWARE | 150. | 0.23% | 487. | 10.65% |
| DIST OF COLUMBIA | 18. | 0.01% | 1067. | 26.21% |
| FLORIDA | 21297. | 1.40% | 6311. | 10.06% |
| GEORGIA | 10001. | 1.01% | 1355. | 3.06% |
| IDAHO | 290. | 1.03% | 24. | 2.99% |
| ILLINOIS | 3816. | 0.40% | 6012. | 11.08% |
| INDIANA | 636. | 0.15% | 1745. | 13.74% |
| IOWA | 1240. | 1.07% | 632. | 21.72% |
| KANSAS | 441. | 0.25% | 563. | 11.17% |
| KENTUCKY | 4636. | 1.64% | 585. | 3.94% |
| LOUISIANA | 23437. | 2.78% | 4255. | 12.89% |
| MARYLAND | 13782. | 1.70% | 6015. | 17.34% |
| MASSACHUSETTS | 440. | 0.20% | 468. | 5.17% |
| MICHIGAN | 3529. | 0.54% | 3857. | 17.77% |

## II. Sample Report Description:

Data in this table is collected from the 1973 OCR Survey. The following information about the state of Alaska represents the information contained in Report 5.2 about each state:

- 23,334 children of school age residing in Alabama do not attend school - this number constitutes 3.04% of the school age population in Alabama.
- 1,823 special education students in Alabama receive their education in special schools. These 1,823 students are 5.57% of Alabama's special education student enrollment.

## III. General Observations:

In general, Special School Enrollments are a small percent of state's Special Education Enrollments. Report 5.2 shows that, for the nation, 10.14% of all Special Education students attend Special Schools, with the South and the West having rates below the National average and the Midwest and Northeast having rates above the national average. In particular, the Northeast places 18.44% of its Special Education students in Special Schools.

On the Regional level, .28% of the enrollment in the Northeast and .60% of the West's enrollment are not in school, well below the National figure of 1.29%. In contrast, the Midwest (1.46%) and South (1.80%) have rates significantly above the National level.

REPORT TITLE: Pupil Statistics for Special School Pupils Receiving Free
Public Transportation and Resident Children not in School
Report 5.3

## I. Report Format and Content:

Numbers and percentages of pupils in Special Schools receiving free public transportation and of resident children not attending schools are contained in Report 5.3. The analysis is conducted at the district level with state and national totals furnished. All district percentages are expressed in terms of total student enrollment in the district. Districts are grouped by state and listed alphabetically; the overall state groupings are also presented in alphabetical sequence. An example of the types of record appearing in this table is the following:

# PUPIL STATISTICS FOR:
# TENNESSEE

| DISTRICT | SPECIAL SCHOOL PUPILS RECEIVING FREE PUBLIC TRANSPORTATION |  | RESIDENT CHILDREN NOT IN SCHOOL |  |
|---|---|---|---|---|
|  | TOTAL | PERCENT | TOTAL | PERCENT |
| HARDEMAN COUNTY BOARD OF EDUC | 0 | 0.0 % | 35 | 0.64% |
| HARDIN COUNTY | 0 | 0.0 % | 10 | 0.23% |
| HAYWOOD COUNTY | 0 | 0.0 % | 0 | 0.0 % |
| HENDERSON COUNTY | 58 | 1.70% | 48 | 1.41% |
| HENRY COUNTY | 12 | 0.31% | 0 | 0.0 % |
| HICKMAN COUNTY | 0 | 0.0 % | 30 | 1.06% |
| HOLLOW ROCK-BRUCETON | 0 | 0.0 % | 14 | 1.45% |
| HUMBOLDT HIGHWAY | 0 | 0.0 % | 0 | 0.0 % |
| HUMBOLDT CITY SCHOOLS | 0 | 0.0 % | 10 | 0.35% |
| HUMPHREYS COUNTY | 0 | 0.0 % | 0 | 0.0 % |
| HUNTINGDON SPECIAL SCH DIST | 0 | 0.0 % | 31 | 2.11% |
| JACKSON CITY | 0 | 0.0 % | 45 | 0.61% |
| JOHNSON CITY PUBLIC SCH | 0 | 0.0 % | 5 | 0.08% |
| KNOXVILLE CITY SCHOOLS | 94 | 0.28% | 20 | 0.06% |
| LAKE COUNTY | 0 | 0.0 % | 30 | 1.53% |
| LAUDERDALE COUNTY | 0 | 0.0 % | 100 | 1.78% |
| LEBANON TENTH SPECIAL DISTRICT | 0 | 0.0 % | 0 | 0.0 % |
| LEWIS COUNTY PUBLIC SCHOOLS | 0 | 0.0 % | 3 | 0.18% |
| LEXINGTON CITY SYSTEM | 0 | 0.0 % | 50 | 5.54% |
| LINCOLN COUNTY | 94 | 2.04% | 21 | 0.46% |
| MADISON COUNTY | 0 | 0.0 % | 0 | 0.0 % |
| MARSHALL COUNTY | 0 | 0.0 % | 0 | 0.0 % |

## II. Sample Report Description:

This table, based on the 1973 OCR Survey, conveys the following information:

- 58 Special School students in Henderson County benefit from free public transportation and these 58 students constitute 1.70% of Henderson County's total student enrollment
- 48 of Henderson County's school-age children are not in school, representing 1.41% of the County's total student enrollment.

## III. General Observations:

Report 5.3 presents district totals for students in Special Schools receiving free public transportation and for resident children not in school. Figures in this report indicate that only a small percent of each state's enrollment use free public transportation to and from Special Schools, as the National figure of .30% would indicate.

REPORT TITLE: Analysis of School Districts with Special Education Schools
Report 5.4

## I. Report Format and Content:

Report 5.4 concentrates on districts which have Special Education Schools. The districts, grouped by state and listed alphabetically, are accompanied by the following information: the district's enrollment; the number of Special Schools in the district; its Special School enrollment; its Special School free transportation enrollment; and its percentage of Special School enrollment receiving free transportation. State and national totals are included in this table. A sample record is the following:

## ANALYSIS OF SCHOOL DISTRICTS WITH SPECIAL EDUCATION SCHOOLS

### MINNESOTA

| DISTRICT | TOTAL ENROLLMENT | # SPECIAL SCHOOLS | SPECIAL SCHOOL ENROLLMENT | SPECIAL SCHOOL FREE TRANSPORTATION ENROLLMENT | % OF SPECIAL SCHOOL ENROLLMENT HAVING FREE TRANSPORTATION |
|---|---|---|---|---|---|
| MINNEAPOLIS PUBLIC SCHOOLS | 58833 | 23 | 925 | 555 | 60.00% |
| ST PAUL 0625 | 45954 | 7 | 503 | 417 | 82.90% |
| STATE TOTAL | 104787 | 30 | 1428 | 972 | 68.07% |

## II. Sample Report Description:

Data in this table is extracted from the 1973 OCR Survey. The following examples illustrate the types of information contained in this record for the state of Minnesota from Report 5.4:

- 45,954 is the total enrollment of St. Paul 0625, a district with seven Special Schools.
- 503 students are enrolled in St. Paul's Special Schools of which 82.9% (or 417 pupils) receive free public transportation.
- 30 is the total number of Special Schools in the state of Minnesota. These schools have a combined enrollment of 1,428 students of which 68.07% utilize free public transportation.

## III. General Observations:

In most districts, the majority of students attending special schools receive free public transportation, as the national figure of 70.97% indicates.

REPORT TITLE: Analysis of Bilingual Instruction and School Counts
Report 5.5

## I. Report Format and Content:

One aspect of this report centers on the bilingual instruction given to pupils in states throughout the nation. The analysis is carried out on the state level. Each state is accompanied with the following information regarding bilingual instruction: the total number of pupils in the state receiving bilingual instruction; the total number of non-Black minority students under bilingual instruction; and the total number of first grade pupils in the state coming from homes where English is not the primary language.

The second area of this report involves an analysis of the number of schools and districts in each state which are included in the OCR 1973 Survey and in the OCR/SDELM merged file. The purpose of this report is twofold: first, to find out how extensively each state was surveyed by OCR in 1973; and, second, what proportion of districts and schools in this OCR survey are contained in the OCR/SDELM file. The OCR/SDELM contains both education and socio-economic information (i.e., percentage of population living in urban areas) about school districts. A sample page from this report appears below:

JUL 17, 1975

# ANALYSIS OF BILINGUAL INSTRUCTION AND SCHOOL COUNTS

| | BILINGUAL INSTRUCTION | | | INSTITUTION COUNT | | | |
|---|---|---|---|---|---|---|---|
| | | | | OCR | | OCR/SDELM | |
| AREA | TOTAL PUPILS | NON-BLACK MINORITY | 1ST GRADE PUPILS | DISTRICTS | SCHOOLS | DISTRICTS | SCHOOLS |
| ALABAMA | 0 | 0 | 23 | 125 | 1397 | 63 | 1056 |
| ALASKA | 2065 | 2065 | 217 | 9 | 269 | 9 | 269 |
| ARIZONA | 6816 | 5515 | 6927 | 74 | 467 | 47 | 383 |
| ARKANSAS | 0 | 0 | 7 | 147 | 591 | 64 | 419 |
| CALIFORNIA | 56059 | 46091 | 30879 | 340 | 5066 | 193 | 4353 |
| COLORADO | 3489 | 2309 | 770 | 48 | 635 | 30 | 557 |
| CONNECTICUT | 3296 | 2562 | 2756 | 15 | 347 | 15 | 347 |
| DELAWARE | 40 | 40 | 77 | 14 | 112 | 14 | 112 |
| DIST OF COLUMBIA | 559 | 385 | 116 | 1 | 200 | 0 | 0 |
| FLORIDA | 4610 | 4210 | 5316 | 64 | 1941 | 43 | 1821 |
| GEORGIA | 0 | 0 | 64 | 164 | 1713 | 63 | 1250 |
| IDAHO | 913 | 487 | 167 | 11 | 72 | 9 | 67 |
| ILLINOIS | 15798 | 15320 | 7376 | 68 | 1427 | 34 | 1186 |
| INDIANA | 668 | 549 | 814 | 20 | 605 | 17 | 585 |
| IOWA | 20 | 20 | 22 | 6 | 210 | 6 | 210 |
| KANSAS | 30 | 30 | 161 | 23 | 408 | 22 | 405 |
| KENTUCKY | 0 | 0 | 26 | 34 | 457 | 18 | 387 |
| LOUISIANA | 4078 | 2280 | 1640 | 66 | 1483 | 51 | 1340 |
| MARYLAND | 55 | 55 | 334 | 18 | 1187 | 18 | 1187 |
| MASSACHUSETTS | 6402 | 4704 | 1526 | 14 | 447 | 12 | 437 |
| MICHIGAN | 2231 | 1546 | 740 | 52 | 1072 | 32 | 96[illegible] |

## II. Sample Report Description:

Data in this report is based on both the 1973 OCR Survey and the OCR/SDELM file. The examples listed below typify the types of information contained in this report:

- 4610 is the number of pupils in Florida receiving bilingual instruction, of which the majority (4210) are non-Black minority students
- 5316 of Florida's first grade pupils come from homes where English is not the native tongue. This high figure suggests there is a large need for bilingual instruction in Florida
- The OCR Survey in 1973 solicited 64 school districts; these 64 districts embody 1941 schools
- 43 of these 64 districts (about 70%) are covered in the OCR/SDELM file. 1821 of the 1941 schools (about 95%) appear in the OCR/SDELM file. These figures indicate that the 43 school districts common to both the OCR survey and the OCR/SDELM file are the large school districts since they contains an average of about 42 schools each while the 21 schools not included in the OCR/SDELM file contain about 6 schools each.

## III. General Observations:

In general, states with big cities and states which border Mexico have a large number of students receiving bilingual instruction while inland states, especially Midwestern States, have few pupils under bilingual instruction. Also, the number of first grade students coming from homes where English is not the principal language is a good indicator of how large a state's bilingual instruction program will be.

In all cases, the OCR/SDELM file covers almost every school which appears in the 1973 OCR Survey. The OCR/SDELM file occasionally will not have information for many small districts, but their omission does not substantially decrease the number of schools in the OCR/SDELM file.

REPORT TITLE: Analysis of Bilingual Instruction and Pupil Counts
Report 5.6

## I. Report Format and Content:

This report focuses on the percentage of each areas school-age population covered by the OCR 1973 Survey and by the OCR/SDELM file. These figures are given for states, regions, and the nation. Bilingual information, similar to that of the previous report, is also provided for each area. An example of the information included in this report appears below:

# ANALYSIS OF BILINGUAL INSTRUCTION AND SCHOOL COUNTS

| | BILINGUAL INSTRUCTION | | | INSTITUTION COUNT | | | |
|---|---|---|---|---|---|---|---|
| | | | | OCR | | OCR/SDELM | |
| AREA | TOTAL PUPILS | NON-BLACK MINORITY | 1ST GRADE PUPILS | STUDENTS | % TOTAL | STUDENTS | % TOTAL |
| NORTHEAST | 143409. | 113926. | 41912. | 3233807. | 34.55 | 2982499. | 31.86 |
| MIDWEST | 21252. | 19598. | 10285. | 3799136. | 29.78 | 3474715. | 27.24 |
| SOUTH | 74147. | 64621. | 62799. | 11932880. | 82.40 | 10149335. | 70.08 |
| WEST | 83661. | 68836. | 45235. | 5018898. | 62.71 | 4531143. | 56.62 |
| NATION | 322469. | 266981. | 160231. | 23976384. | 53.76 | 21135152. | 47.39 |

## II. Sample Report Description:

The following types of information, derived from both the OCR 1973 Survey and from the OCR/SDELM file, are accessible through this table:

- 23,576,384 pupils in the nation, or 53.76% of all pupils in the nation, are represented in the OCR 1973 Survey
- 47.39% of our nation's school-age population are represented in the OCR/SDELM file. So information on just 6% of the nation's enrollment is discounted when the OCR/SDELM file is used for analysis rather than the OCR 1973 Survey file.

## III. General Observations:

This report suggests two important observations about the data sources used for this analysis:

1. The overall representation is very extensive. In all Regions, at least one-fourth of the students have been surveyed. Nationally, statistics have been collected for about half of all students.

2. Very little information is lost when the OCR/SDELM file (with its socio-economic information) is used in place of the OCR 1973 Survey. Nationally, enrollment information is lost for just 6% of all pupils; Regionally, at most 12% of a region's students are covered by the OCR 1973 Survey but not by the OCR/SDELM file.

# ANALYSIS OF VARIANCE AND CORRELATIONS

REPORT TITLE: Analysis of the Variance in Special Education Participation Rates as Socio-economic Characteristics of School Districts Change
Report 6.1

## I. Report Content:

When trends in Special Education participation rates are observed as a socio-economic characteristic of school districts changes, we face the following statistical problem: each of the five or six groupings of districts (i.e., those with 0 - 5%, 6 - 10%, 11 - 15%, 16 - 25%, and over 25% of their population living in poverty) has a different average rate of participation in Special Education. Furthermore, these different averages suggest that there is a relationship between participation and some socio-economic condition. In order to conclude that this dependence is meaningful, a statistical test of some kind must be applied to the data.

Therefore, we used the IBM Subroutine Package for the Social Sciences (SPSS) to compute a statistical measure called the F Ratio, which analyzes the dependence of minority, non-minority, and total enrollments' participation in Special Education upon social and economic surroundings. The socio-economic parameters considered include: enrollment size, percentage of population living below poverty, per capita income, percentage of minority population in the district, and the percentage of district population living in urban areas.

A high F Ratio indicates that the different average participation rates for each grouping of districts are statistically significant. For example, if districts with per capita incomes in the $0 - $1,500 range have an average participation rate in Special Education of 6%, districts with per capita incomes between $1,501 - $2,500 have a 5% rate of participation, and districts with per capita incomes between $2,500 - $3,000 have an average participation rate of 4%, then an F Ratio can be computed for these figures. A high F Ratio would mean that the different rates (6%, 5%, 4%) for the groupings of districts are statistically meaningful and not a by-product of chance fluctuations.

The equation for the F Ratio is

$$\text{F Ratio} = \frac{\text{Variance Between Groups}}{\text{Variance Within Groups}}$$

where

Variance Between Groups =

$$\sum_{i=1}^{\text{\# Groups}} \frac{(\text{\# Districts})_i((\text{participation rate})_i - \text{Overall Avg.Part. Rate})^2}{\text{\# Groups} - 1}$$

and

Variance Within Groups =

$$\sum_{i=1}^{\#\text{ Groups}} \; \sum_{i=1}^{(\#\text{ Districts})_i} \frac{((\text{Participation Rate})_i - (\text{Avg. Part. Rate})_i)^2}{\#\text{ Districts} - \#\text{ Groups} - 1}$$

with

# Groups is the number of groupings of the socio-economic parameter

$(\#\text{ Districts})_i$ is the number of districts in the ith parameter grouping

$(\text{Participation Rate})_i$ is average participation rate for districts in the ith parameter grouping

$\sum_{i=1}^{\#\text{ Groups}}$ is the sum for i = 1, 2, 3, ..., total number of groups

$\sum_{i=1}^{(\#\text{ Districts})_i}$ is the sum for i = 1, 2, 3, ..., total number of districts in the ith group.

So if the Variance Within Groups is big, then there is considerable variance in the participation rates within a parameter grouping; consequently. these groupings will vary simply because of chance fluctuations. Under these conditions, observed trends are spurious.

If the Variance Between Groups is large, then populations have mean participation rates which generally differ considerably from the overall average participation rate. If this is the case, and if the variance within a parameter group is not too great, then the calculated F Ratio will be high and any trends observed will be statistically meaningful.

A sample entry from this report appears below:

```
MULTIPLE CORRELATION                                                                  06/20/75        PAGE    4

CRITERION VARIABLE EMR

- - - - - - - - - - - - - - - - - - - - A N A L Y S I S   O F   V A R I A N C E - - - - - - - - - - - - - - - - - - - - -

      VARIABLE              CODE    VALUE LABEL                SUM          MEAN        STD DEV      SUM OF SQ        N

XPOVERTY                      1   00-05% POVERTY            149.3016       0.8834       0.7211        87.3682     (   169)
XPOVERTY                      2   06-10% POVERTY            593.5754       1.4766       1.1012       486.2595     (   402)
XPOVERTY                      3   11-15% POVERTY            586.0967       1.8547       2.2038      1529.8687     (   316)
XPOVERTY                      4   16-25% POVERTY            714.3232       2.0065       1.4088       704.5967     (   356)
XPOVERTY                      5   OVER 25% POVERTY          677.0308       2.2643       1.8728      1045.1851     (   299)
                                                        ---------------------------------------------------------------------
                                        TOTAL          2720.3276       1.7642       1.5813      3853.2781     (  1542)


                  * * * * * * * * * * * * * * A N O V A   T A B L E * * * * * * * * * * * * * * * *
                  *                                                                                 *
                  *                     SUM OF SQUARES    DEGREES OF FREEDOM    MEAN SQUARE          *
                  *                                                                                 *
                  *  BETWEEN GROUPS         262.6360          (     4)           65.6590            *
                  *                                                                                 *
                  *  WITHIN GROUPS         3853.2781          (  1537)            2.5070            *
                  *                                                                                 *
                  *  TOTAL                 4115.9141          (  1541)                              *
                  *                                                                                 *
                  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
                  *                                                                                 *
                  *    F =     26.1901                                                              *
                  *                                                                                 *
                  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *


                  * * * * * * * * * * * * * T E S T   O F   L I N E A R I T Y * * * * * * * * * * * *
                  *                                                                                 *
                  *                     SUM OF SQUARES    DEGREES OF FREEDOM    MEAN SQUARE          *
                  *                                                                                 *
                  *  REGRESSION             245.3109          (     1)          245.3109            *
                  *                                                                                 *
                  *  DEV FROM LINEARITY      17.3251          (     3)            5.7750            *
                  *                                                                                 *
                  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
                  *                                                                                 *
                  *    F =     2.3036        ETA SQRD =     0.0638        CORR COEFF =     0.2441      *
                  *                                                                                 *
                  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

## II. Sample Report Description:

This report, which is based on data from the OCR/SDELM file, contains the following types of information:

- .8834 is the mean (or average) rate of participation in EMR for districts in the nation with 0 - 5% of their population living below poverty standards. Similarly, 1.4766 is the mean participation rate in EMR for districts with 6 - 10% poverty.
- 1.7642 is the overall average rate of participation in EMR for the nation's school-age population
- 26.1901 is the computed F ratio for the series of values .8834, 1.4766, 1.8547, 2.0065, and 2.2643. This high F Ratio certifies that the increase in EMR participation as districts become more impoverished is statistically meaningful. In fact, an F Ratio of 26.1901 indicates that we can be more than 99.9% certain that the trends we observed are significant.

## III. General Observations:

In general, the F Ratios computed for minority, non-minority, and total enrollments' participation in the various aspects of Special Education support conclusions suggested by the graphical displays. That is, often when a clear trend (corresponding to lines with noticable slopes) appears graphically in participation rates as some socio-economic characteristic of districts varies, the F Ratio is usually greater than three, which means we can be more than 99% certain an observed trend is significant.

Also, the dependence of overall Special Education participation upon the socio-economic conditions analyzed is statistically validated by the F test. This validation indicates that at least some of the factors which influence Special Education participation have been uncovered. The rate at which children are serviced by Special Education programs definitely is affected by their home district's size, urbanization, per capita income, percentage of opoulation living below poverty, and percentage of minority population.

REPORT TITLE: Analysis of the Correlation of Special Education Participation to Various Socio-economic Characteristics of School Districts
Report 6.2

I. Report Content:

Using the SPSS package, we calculated standard correlation coefficients for participation rates and social and economic factors in districts using a variety of different measures of participation and socio-economic conditions. A correlation coefficient is, in brief, a concise mathematical estimate of the linear relation of one variable to another. For example, if one variable were lack of taste in television shows and another were the number of "Three Stooges" re-runs watched each week, we would expect the two variables to be strongly correlated - that is, the less taste a person has in television shows, the more the person watches the "Three Stooges" (although this correlation reflects a value judgement on the part of the author).

In our study we were principally concerned with the relation of pupils' involvement in Special Education and the available data from the OCR/SDELM file characterizing districts: percent minority enrollment; per capita income; total size of enrollment; percentage of population living in urban areas; and percentage of population living below the povery level. Correlation coefficients were calculated for the Nation in the following ways.

How well students' participation in EMR, TMR, Other programs, Special Disability and Total Special Education correlation to Percent Minority, Income, Size, Percent Urban, and Poverty using

- percentage participation rates in Special Education programs, for districts in selected states, the Regions (Northeast, Midwest, South, and West), as well as the Nation.
- percentage participation rates in Special Education programs weighting districts by enrollment size (count bigger districts by enrollment size (count bigger districts more heavily than smaller districts), for districts in selected states as well as the Nation.
- percentage participation rates in Special Education programs and districts' socio-economic parameters as percentages of state averages.

  For example, average per capita income for a district is expressed not as a dollar figure but as a percentage which indicates how the district's average income compares to the average income of the state. The motivation behind this approach is that averages for districts in two different areas are best compared by first relating them to the local environment. Under this scheme, districts in New York and Kansas with high average incomes relative to state averages have something in common even though the actual dollar figures for average incomes may be very different due to factors such as differing costs of living, differing amounts of food grown at home, etc.

- percentage participation rates in EMR, TMR, Special Disability, and "Total" Special Education (does not include Other programs). This approach seeks to learn if suppressing an aspect of Special Education which has imprecise admission criteria leads to significand correlations between total participation in EMR, TMR, and Special Disability programs and socio-economic parameters.
- participation rates in EMR, TMR, Other programs, and Special Disability as percentages of total Special Education participation.
- the number of standard deviations separating the actual minority enrollment in a program and the number which would be expected if the ethnic composition of the program reflected the ethnic composition of the area.
- minority participation rates in Special Education programs.
- non-minority participation rates in Special Education programs.
- total enrollment in Special Education programs, for the Regions as well as the Nation.

The correlation coefficients we generated embodied, by and large, no significant linear relations between participation rates and districts' socio-economic characteristics. Apparently, the effect of social and economic surroundings on participation in Special Education is too complicated to be capsulized by a simple linear equation. Although the factors we examined are obviously related to trends in Special Education (see Appendix A with graphs), no one factor by itself determines a districts' Special Education participation - which partially explains why correlation coefficients are of little value to this study. Also, although large scale trends do occur (again, see Appendix A with graphs), the great variance in districts' participation rates - even among districts with a similar socio-economic characteristics - obscures linear correlations between participation and a socio-economic parameter.

The equation used to calculate correlation coefficients underscores their sensitivity to variations:

Correlation Coefficient between X and Y =

$$\frac{\sum_{i=1}^{\#\text{ Districts}} (X_i - \overline{X})(Y_i - \overline{Y})}{\left[\sum_{i=1}^{\#\text{ Districts}} (X_i - \overline{X})^2 \sum_{i=1}^{\#\text{ Districts}} (Y_i - \overline{Y})^2\right]^{1/2}}$$

where

| | |
|---|---|
| $X$ | is a variable |
| $Y$ | is a variable |
| $X_i$ | is the value of the variable X in the ith district |
| $Y_i$ | is the value of the variable Y in the ith district |
| $\overline{X}$ | is the average value of X for all districts considered |
| $\overline{Y}$ | is the average value of Y for all districts considered |

$\sum_{i=1}^{\#\text{ Districts}}$ is the sum for i = 1, 2, 3, ... , total number of districts

If the values of X and Y from district to district ($X_i$, $Y_i$) vary considerably from the overall averages ($\overline{X}$, $\overline{Y}$), then the variance is high causing the denominator to be large. The numerator will not necessarily also be large, since it will sometimes be negative and sometimes be positive. These terms will tend to balance out and we will be left with a small numerator, a large denominator, and therefore a small correlation coefficient, which indicates there is no linear relation between the two variables.

Consequently, our analysis utilizes graphic displays of those relationships, with a statistical measure - the F Ratio - estimating the significance of any trends which emerge. Correlation coefficients have been calculated, examined, and used as indicators of possible trends, but will not play a major role in this report.